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DEPARTMENT OF BUSINESS,
ECONOMIC DEVELOPMENT
& TOURISM

The State of Hawaii
DATA BOOK

1990

A Statistical Abstract

1959

November 1990

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This report is largely the work of the DBED Research and Economic Analysis Division, headed by Richard Y. P. Joun, Ph.D. It was compiled and edited by Robert C. Schmitt, State Statistician, with the assistance of Sharon N. Nishi, Emogene K. Estores, Jan N. Nakamoto, and Michele Nishimoto. The camera-ready copy was typed and proofread by Judy F. Noda, Charlotte N. L. Chow, and Jolly I. Ige. Stewart A. Wastell, illustrator in the Office of State Planning, drew the maps. Printing arrangements were handled by the DBED's Information Office.

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ABOUT THIS BOOK

The State of Hawaii Data Book: A Statistical Abstract is the standard official summary of statistics on the social, economic, and political organization of our island state.

In addition to serving as a reference, it is a guide to other sources of statistics.

The State of Hawaii State Data Book closely follows the organization and format of its counterpart, the Statistical Abstract of the United States, thus facilitating comparison of Hawaii and national data.

The State of Hawaii Data Book places the major emphasis on statewide data and less on counties, islands, urban places, and smaller areas. Source references for additional statistical detail are given in the introductions to the various sections and at the end of each table.

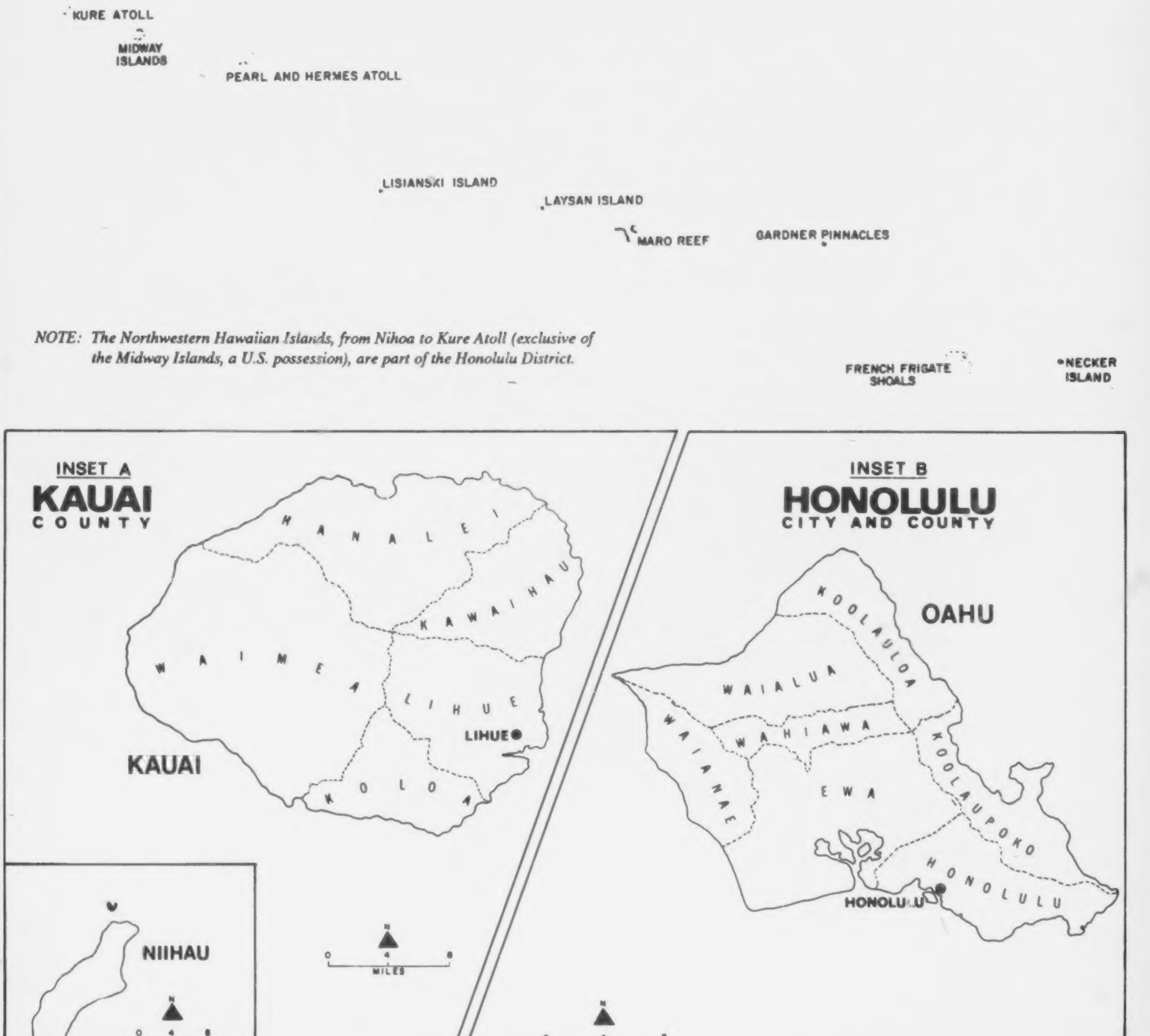
This is the 24th such abstract published by the State of Hawaii. Earlier editions appeared in 1962, 1967, 1968, and annually beginning in 1970. All before 1989 are now out of print, but copies can be found in many libraries in Hawaii.

Many Federal, State, County, and private organizations cooperated with the DBED Research and Economic Analysis Division in the preparation of this book. They are credited in the source references that accompany the tables to which they contributed.

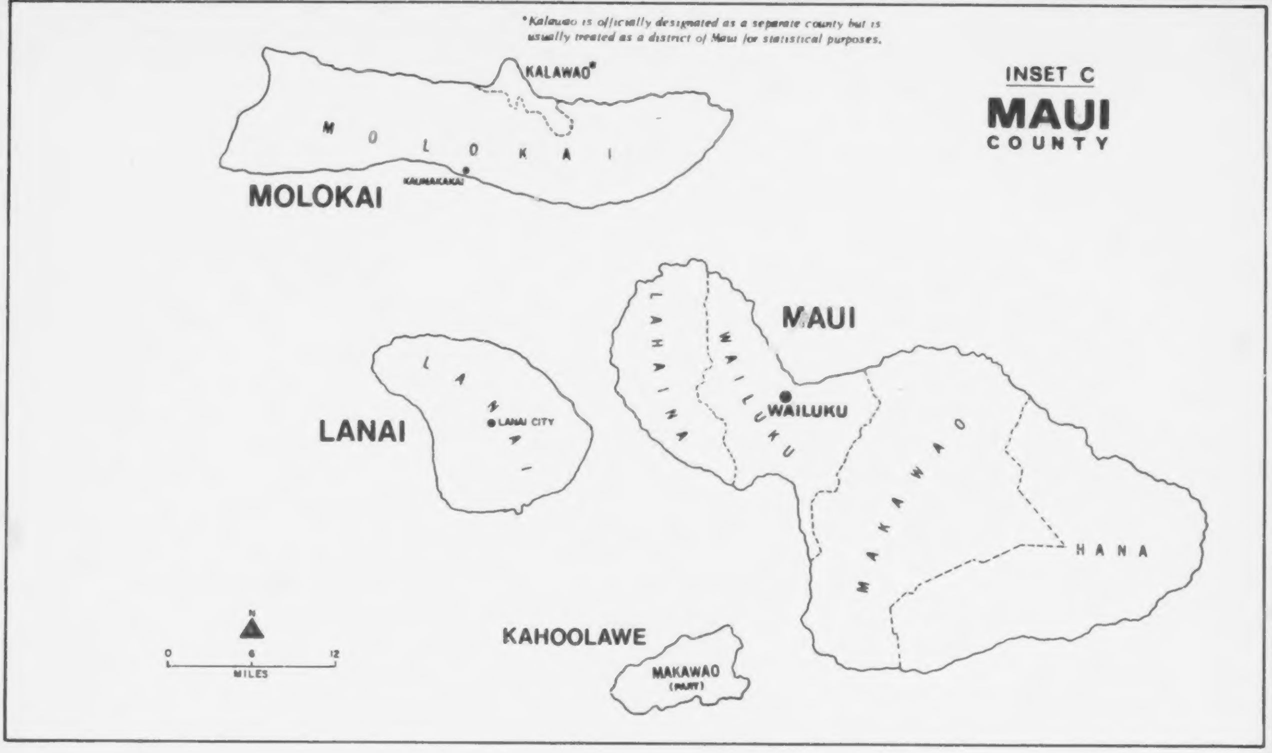
John Waihee
Governor of Hawaii

Roger A. Ulveling
Director of Business,
Economic Development & Tourism

STATE OF HAWAII
COUNTIES and DISTRICTS


KURE ATOLL
MIDWAY ISLANDS
PEARL AND HERMES ATOLL
LISIANSKI ISLAND
LAYSAN ISLAND
MARO REEF
GARDNER PINNACLES
FRENCH FRIGATE SHOALS
NECKER ISLAND
INSET A
KAUAI
COUNTY
HANALEI
KAWAIHAU
WAIMEA
LIHUE
LIHUE
KOLOA
KAUAI
NIIHAU
N
0 4 8
MILES
N
0 4 8
MILES
INSET B
HONOLULU
CITY AND COUNTY
OAHU
KOOLAULOA
WAIALUA
WAIANAE
WAHIAWA
EWA
KOOLAUPOKO
HONOLULU
HONOLULU
N
0 4 8
MILES

NOTE: The Northwestern Hawaiian Islands, from Nihoa to Kure Atoll (exclusive of the Midway Islands, a U.S. possession), are part of the Honolulu District.



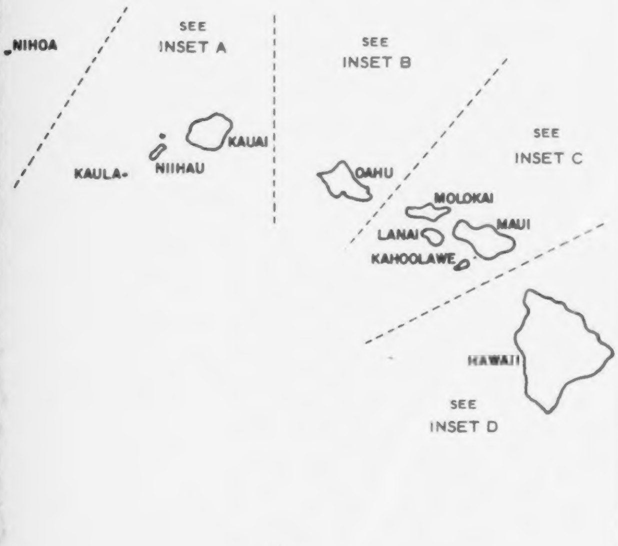
INSET C

MAUI

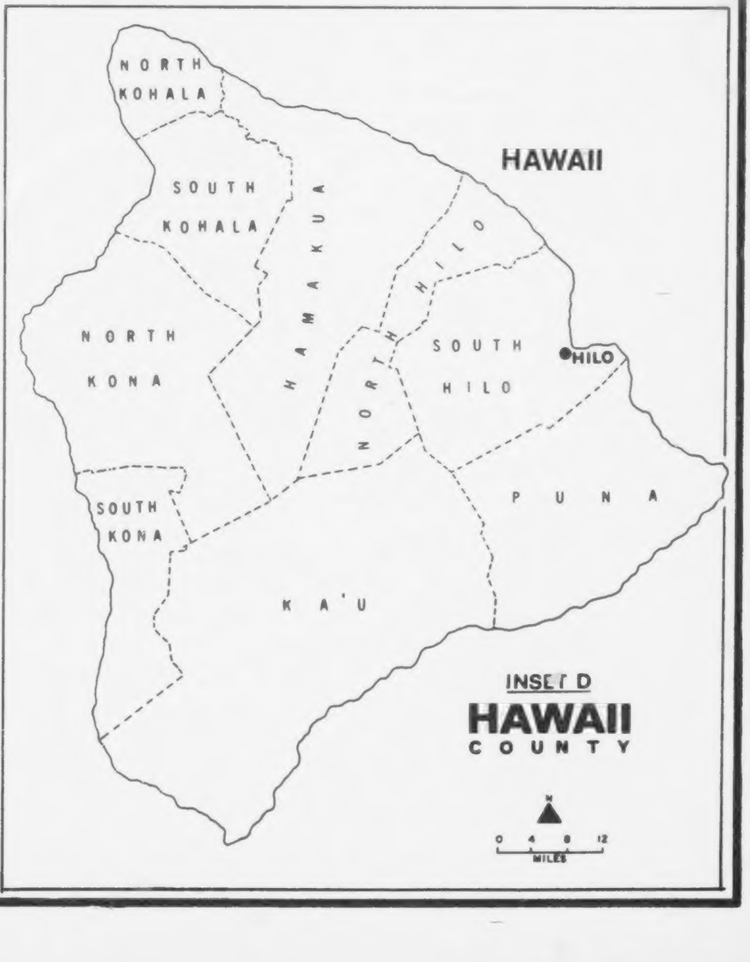
COUNTY

*Kalawao is officially designated as a separate county but is usually treated as a district of Maui for statistical purposes.

MOLOKAI
M O L O K A I
KALAWAO*
KAUNAKAKAI
MAUI
LAHAINA
WAILUKU
WAILUKU
MAKAWAO
HANA
LANAI
L A N A I
LANAI CITY
KAHOOLAWE
MAKAWAO (PART)
N
0 6 12
MILES



NIHOA
SEE INSET A
SEE INSET B
SEE INSET C
SEE INSET D
KAUAI
NIIHAU
KAULA
OAHU
MOLOKAI
LANAI
MAUI
KAHOOLAWE
HAWAII
N
0 100 200 300
MILES



INSET D

HAWAII

COUNTY

HAWAII
NORTH KOHALA
SOUTH KOHALA
HAMAKUA
NORTH HILO
SOUTH HILO
HILO
NORTH KONA
SOUTH KONA
KA'U
PUNA
N
0 4 8 12
MILES

STATE OF HAWAII

DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

1989

GUIDE TO TABULAR PRESENTATION

The tables in this report generally follow the principles of tabular presentation used by the U.S. Bureau of the Census in its annual publication, Statistical Abstract of the United States, and described in Bureau of the Census Manual of Tabular Presentation, published by the Bureau in 1950. These principles have been accepted by the Department of Business and Economic Development for use in its publications and recommended to all other State agencies for official use.

Headnotes immediately below table titles provide information important for correct interpretation or evaluation of the table as a whole or for a major segment of it.

Unit indicators ("In thousands," "In millions of dollars," etc.) are usually given as the first element of the headnote. In tables where several units are used, the unit indicators are generally given in the stub or in the column headings.

Footnotes below the bottom rule of tables give information relating to specific items, figures or symbols within the table.

Parallel vertical rules are used to the right of a total column to indicate --

(1) that the components which follow add to the total;
(2) in the case of derived figures, that the underlying data are additive to their total.

A dash (-) represents zero in references to absolute values. In rates and percentages, a zero (0) is used.

In many tables, details will not add exactly to the totals shown because of rounding.

Geographic coverage should be understood as Statewide, unless otherwise indicated in the table title, headnote, boxhead, or stub. All annual statistics should be understood as referring to calendar years unless otherwise indicated.

UNITED STATES AND METRIC WEIGHTS AND MEASURES

U.S.			to	Metric	Metric			to	U.S.
Length									
Inches	x	25.4	=	millimeters	millimeters	x	0.039	=	inches
Feet	x	0.305	=	meters	meters	x	3.281	=	feet
Statute miles	x	1.609	=	kilometers	kilometers	x	0.621	=	miles
Area									
Sq. feet	x	0.093	=	sq. meters	sq. meters	x	10.764	=	sq. feet
Acres	x	0.405	=	hectares	hectares	x	2.471	=	acres
Sq. miles	x	2.589	=	sq. kilometers	sq. kilometers	x	0.386	=	sq. miles
Volume and capacity									
Cubic feet	x	0.028	=	cu. meters	cu. meters	x	35.315	=	cu. feet
Cubic yards	x	0.765	=	cu. meters	cu. meters	x	1.308	=	cu. yards
Fluid ounces	x	29.573	=	milliliters	milliliters	x	0.034	=	fluid ounces
Quarts (liq.)	x	0.946	=	liters	liters	x	1.057	=	quarts (liq.)
Gallons (liq.)	x	3.785	=	liters	liters	x	0.264	=	gallons (liq.)
Mass									
Ounces (avdp.)	x	28.350	=	grams	grams	x	0.035	=	ounces (avdp.)
Pounds (avdp.)	x	0.454	=	kilograms	kilograms	x	2.205	=	pounds (avdp.)
Hundredweight	x	45.359	=	kilograms	kilograms	x	0.022	=	hundredweight
Short tons	x	0.907	=	metric tons	metric tons	x	1.102	=	short tons

Miscellaneous conversions
1 statute mile = 5,280 ft. = 1,760 yards
1 acre = 43,560 sq. feet
1 square mile = 640 acres
1 short ton = 2,000 pounds

Continued on next page.

UNITED STATES AND METRIC WEIGHTS AND MEASURES -- Con.

Fahrenheit	to	Celsius	Celsius	to	Fahrenheit
Temperature					
100 °F		37.8 °C	40 °C		104.0 °F
90		32.2	35		95.0
80		26.7	30		86.0
70		21.1	25		77.0
60		15.6	20		68.0
50		10.0	15		59.0
40		4.4	10		50.0
30		-1.1	5		41.0
20		-6.7	0		32.0
10		-12.2	-5		23.0
			-10		14.0

Source: U.S. National Bureau of Standards, Special Publication 304a; Department of Geography, University of Hawaii, Atlas of Hawaii, 2nd edition (1983), pp. 218-219.

Section 1

POPULATION

This section presents statistics on the growth, geographic distribution, and composition of the population of Hawaii, and on the number and characteristics of migrants moving to and from the State.

Provisional estimates for 1989 (to be revised after the release of 1990 census results) indicate a resident population of 1,112,000. This total is well above the 1980 census count of 964,691 and the earlier counts of 422,770 in 1940, 154,001 in 1900, and 84,165 in 1850. These censuses and estimates include members of the armed forces stationed in Hawaii and their local dependents, a group making up 10.5 percent of the resident total when last surveyed. The 1989 de facto population--which included 170,000 visitors present on an average day in that year but excluded 19,000 residents temporarily absent--was 1,263,000. Almost three-fourths of the 1989 de facto total was on Oahu, giving that island a density of 1,536 persons per square mile. The population of the State is mostly male (51 percent), relatively young--the median age in 1989 was 32.3 years--and racially diversified. The major unmixed groups, based on a 1987 sample survey, were Caucasians (24 percent of the non-barracks, non-institutional population) and Japanese (23 percent). In addition, 31 percent were of mixed race, primarily part Hawaiian. There were approximately 361,000 households in the State in 1989, with an average household size of 2.97. Migration has been a major factor in the growth of the population: between 1980 and 1989, there was a net in-migration (excluding military personnel and dependents) of 67,000, accounting for 44 percent of the total civilian population growth during that time. Immigrant arrivals in fiscal 1989 numbered 7,000, mostly from the Philippines.

The principal sources for these data are the decennial population censuses conducted by the U.S. Bureau of the Census, the estimates developed annually by the Hawaii State Department of Health and Department of Business, Economic Development & Tourism in cooperation with the Bureau of the Census, the Hawaii Health Surveillance Program conducted regularly since 1969 by the Department of Health, the ongoing series on visitors present and residents absent provided by the Hawaii Visitors Bureau, and the U.S. Immigration and Naturalization Service tabulations on immigration. Earlier figures on population and migration are given in Historical Statistics of Hawaii, Section 1 and 3. Comparable national statistics on population and migration appear in Section 1 of Statistical Abstract of the United States: 1990.

Table 1.-- POPULATION: 1831-32 TO 1989

[Missionary censuses for 1831-32 and 1835-36, Hawaiian government censuses for 1850-1896, U.S. government censuses for 1900-1980, and estimates for 1876, 1944, and 1989. Data through 1896 are on a de facto or unspecified basis; data for 1900 and later years are on a resident basis, and include armed forces stationed or homeported in Hawaii]

Date	Population	Percent change 1/	Date	Population	Percent change 1/
1831-1832	130,313	...	1900: June 1	154,001	9.4
1835-1836	108,579	-4.6	1910: Apr. 15	191,874	2.2
1850: Jan.	84,165	-1.8	1920: Jan. 1	255,881	3.0
1853: Dec. 26	73,138	-3.5	1930: Apr. 1	368,300	3.6
1860: Dec. 24	69,800	-0.7	1940: Apr. 1	422,770	1.4
1866: Dec. 7	62,959	-1.7	1944: July 1 3/	858,945	16.7
1872: Dec. 27	56,897	-1.7	1950: Apr. 1	499,794	-9.4
1876: Jan. 1 2/	53,900	-1.8	1960: Apr. 1	632,772	2.4
1878: Dec. 27	57,985	2.4	1970: Apr. 1	769,913	2.0
1884: Dec. 27	80,578	5.5	1980: Apr. 1	964,691	2.3
1890: Dec. 28	89,990	1.8	1989: July 1	1,112,100	1.7
1896: Sept. 27	109,020	3.3			

1/ Annual rate since the previous estimate or census, based on the formula for continuous compounding.

2/ Estimated population at 19th century low.

3/ Estimated population at World War II peak.

Source: Robert C. Schmitt, *Historical Statistics of Hawaii* (University Press of Hawaii, 1977), pp. 8-10; *U.S. Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Hawaii*, PC80-1-A13 (October 1981), table 1; Federal-State Cooperative Program for Local Population Estimates.

Table 2.-- RESIDENT POPULATION, BY MILITARY STATUS: 1970 TO 1989

[Excludes visitors present but includes residents temporarily absent]

Year	Total resident population	Armed forces 1/	Civilian population		
			All civilians	Military dependents 2/	Not military dependents
1970: April 1 .	769,913	55,142	714,771	61,858	652,913
July 1 ..	771,600	53,800	717,800	57,800	660,100
1971: July 1 ..	801,600	50,800	750,800	62,200	688,700
1972: July 1 ..	828,300	52,000	776,400	66,200	710,100
1973: July 1 ..	851,600	58,100	793,500	70,300	723,200
1974: July 1 ..	868,000	57,500	810,500	68,300	742,100
1975: July 1 ..	886,200	58,800	827,400	63,700	763,700
1976: July 1 ..	904,200	57,800	846,400	67,000	779,400
1977: July 1 ..	918,300	56,500	861,800	65,000	796,800
1978: July 1 ..	931,600	58,300	873,300	61,100	812,200
1979: July 1 ..	953,300	57,900	895,400	64,500	830,900
1980: April 1 .	964,691	57,056	907,635	64,023	843,612
July 1 ..	968,900	57,900	911,000	64,100	846,900
1981: July 1 ..	980,300	56,600	923,700	64,300	859,400
1982: July 1 ..	997,700	54,900	942,800	66,700	876,100
1983: July 1 ..	1,018,500	55,200	963,400	66,300	897,100
1984: July 1 ..	1,035,800	57,300	978,500	67,100	911,400
1985: July 1 ..	1,049,500	56,400	993,100	64,300	928,900
1986: July 1 ..	1,063,700	58,100	1,005,600	66,200	939,400
1987: July 1 ..	1,082,000	58,100	1,023,900	64,800	959,000
1988: July 1 ..	1,096,200	56,800	1,039,300	69,900	969,400
1989: July 1 ..	1,112,100	56,400	1,055,700	60,300	995,500

1/ These figures are the estimates developed by the U.S. Bureau of the Census for use in population estimation. They differ somewhat from corresponding figures from other sources.

2/ Dependents living in Hawaii, regardless of location of family head.

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 1; Federal-State Cooperative Program for Local Population Estimates.

Table 3.-- RESIDENT AND DE FACTO POPULATION, BY RESIDENCE STATUS: 1970 TO 1989

Year	Resident population 1/		De facto population 3/		De facto-resident ratio 4/
	Total	Temporarily absent 2/	Total	Visitors present 2/	
1970: April 1 ..	769,913	10,300	796,500	36,900	1,035
July 1 ...	771,600	10,000	798,600	36,900	1,035
1971: July 1 ...	801,600	9,400	833,100	40,900	1,039
1972: July 1 ...	828,300	8,600	869,800	50,100	1,050
1973: July 1 ...	851,600	9,800	901,300	59,600	1,058
1974: July 1 ...	868,000	7,800	923,700	63,500	1,064
1975: July 1 ...	886,200	9,000	943,500	66,300	1,065
1976: July 1 ...	904,200	9,400	970,300	75,500	1,073
1977: July 1 ...	918,300	9,000	992,300	83,000	1,081
1978: July 1 ...	931,600	9,300	1,014,300	92,000	1,089
1979: July 1 ...	953,300	9,300	1,042,700	98,700	1,094
1980: April 1 ..	964,691	9,600	1,052,700	97,600	1,091
July 1 ...	968,900	9,600	1,055,800	96,500	1,090
1981: July 1 ...	980,300	11,600	1,064,700	96,000	1,086
1982: July 1 ...	997,700	14,500	1,088,500	105,300	1,091
1983: July 1 ...	1,018,500	11,500	1,115,100	108,000	1,095
1984: July 1 ...	1,035,800	16,100	1,138,400	118,700	1,099
1985: July 1 ...	1,049,500	18,600	1,147,700	116,700	1,094
1986: July 1 ...	1,063,700	17,200	1,179,400	132,900	1,109
1987: July 1 ...	1,082,000	15,700	1,200,500	134,300	1,110
1988: July 1 ...	1,096,200	20,800	1,216,700	141,400	1,110
1989: July 1 ...	1,112,100	18,700	1,263,000	169,700	1,136

1/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

2/ Averages for 12-month periods centered on the estimate or census dates.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

4/ De facto population per 1,000 resident population.

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 2; Federal-State Cooperative Program for Local Population Estimates.

Table 4.-- RESIDENT POPULATION OF ISLANDS: 1940 TO 1980

Island	1940	1950	1960	1970	1980
State of Hawaii	422,770	499,794	632,772	769,913	964,691
Hawaii	73,276	68,350	61,332	63,468	92,053
Kahoolawe	1	-	-	-	-
Maui 1/	46,919	40,103	35,717	38,691	62,823
Lanai	3,720	3,136	2,115	2,204	2,119
Molokai	5,340	5,280	5,023	5,261	6,049
Oahu 2/	257,664	353,006	500,394	630,497	762,534
Kauai	35,636	29,683	27,922	29,524	38,856
Niihau 3/	182	222	254	237	226
Northwestern Hawaiian Islands .	-	14	15	31	31
French Frigate Shoals	-	14	(NA)	(NA)	4
Laysan Island	-	-	(NA)	(NA)	5
Kure Atoll	-	-	(NA)	(NA)	22
Other islands 4/	-	-	(NA)	(NA)	-
Midway Islands 5/	437	416	2,356	2,220	453
Johnston Atoll 5/	69	46	156	1,007	327
Palmyra Atoll 6/	32	-	-	-	-

NA Not available.

1/ Including Molokini, uninhabited.

2/ Including Sand Island (56 in 1970, 60 in 1980), Mokauea Island (12 in 1970, 11 in 1980), Ford Island (798 in 1970, 522 in 1980), and Moku o Loe (uninhabited in 1970, 16 in 1980). The combined total for Sand Island and Mokauea Island in 1960 was 36. These offshore islands were not reported separately in other years.

3/ Including Lehua and Kaula, uninhabited.

4/ Nihoa, Necker Island, Gardner Pinnacles, Maro Reef, Lisianski Island, and Pearl and Hermes Atoll.

5/ Not part of the Territory or State of Hawaii.

6/ Part of the Territory of Hawaii but not the State of Hawaii.

Source: U.S. Bureau of the Census, decennial census bulletins on number of inhabitants, census tracts, and block statistics, 1940-1980.

Table 5.-- RESIDENT POPULATION, BY COUNTIES: 1970 TO 1989

[Based on place of usual residence. Includes armed forces stationed or homeported in Hawaii and residents temporarily absent; excludes visitors present]

Date	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1970: April 1 ...	769,913	630,528	63,468	29,761	46,156
July 1	771,600	631,600	63,800	29,800	46,500
1971: July 1	801,600	654,600	67,000	30,900	49,100
1972: July 1	828,300	674,900	70,000	31,900	51,500
1973: July 1	851,600	691,400	73,900	32,900	53,400
1974: July 1	868,000	707,600	74,000	32,600	53,800
1975: July 1	886,200	718,600	77,400	33,400	56,800
1976: July 1	904,200	728,300	80,700	34,900	60,300
1977: July 1	918,300	737,000	82,800	35,500	63,000
1978: July 1	931,600	742,600	85,900	36,800	66,200
1979: July 1	953,300	756,000	89,400	38,100	69,700
1980: April 1 ...	964,691	762,565	92,053	39,082	70,991
July 1	968,900	764,800	93,000	39,400	71,600
1981: July 1	980,300	768,500	97,000	40,600	74,200
1982: July 1	997,700	778,700	100,200	41,900	76,900
1983: July 1	1,018,500	793,100	102,700	43,000	79,800
1984: July 1	1,035,800	801,300	107,000	44,100	83,400
1985: July 1	1,049,500	809,600	109,300	45,300	85,300
1986: July 1	1,063,700	819,200	111,300	46,200	87,000
1987: July 1	1,082,000	829,100	114,800	47,900	90,200
1988: July 1	1,096,200	836,900	117,200	49,200	92,800
1989: July 1	1,112,100	841,600	122,300	51,000	97,200

1/ Including Kalawao County (Kalaupapa Settlement).

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 3; Federal-State Cooperative Program for Local Population Estimates.

Table 6.-- RESIDENT POPULATION OF COUNTIES AND ISLANDS: ANNUALLY, 1980 TO 1989

County and island	April 1, 1980	July 1, 1981	July 1, 1982	July 1, 1983	July 1, 1984
State total ...	964,691	980,300	997,700	1,018,500	1,035,800
Counties:					
Hawaii	92,053	97,000	100,200	102,700	107,000
Maui	70,847	74,000	76,700	79,600	83,300
Kalawao	144	162	164	159	150
Honolulu	762,565	768,500	778,700	793,100	801,300
Kauai	39,082	40,600	41,900	43,000	44,100
Islands:					
Hawaii	92,053	97,000	100,200	102,700	107,000
Maui	62,823	65,700	68,400	71,300	74,900
Kahoolawe	-	-	-	-	-
Lanai	2,119	2,100	2,100	2,100	2,100
Molokai	6,049	6,300	6,400	6,400	6,400
Oahu	762,565	768,500	778,700	793,100	801,300
Kauai	38,856	40,500	41,700	42,800	43,900
Niihau	226	185	193	183	180

County and island	July 1, 1985	July 1, 1986	July 1, 1987	July 1, 1988	July 1, 1989
State total ...	1,049,500	1,063,700	1,082,000	1,096,200	1,112,100
Counties:					
Hawaii	109,300	111,300	114,800	117,200	122,300
Maui	85,200	86,900	90,100	92,700	97,100
Kalawao	148	145	145	121	127
Honolulu	809,600	819,200	829,100	836,900	841,600
Kauai	45,300	46,200	47,900	49,200	51,000
Islands:					
Hawaii	109,300	111,300	114,800	117,200	122,300
Maui	76,600	78,200	81,400	83,900	88,100
Kahoolawe	-	-	-	-	-
Lanai	2,200	2,200	2,200	2,200	2,200
Molokai	6,500	6,600	6,700	6,700	6,900
Oahu	809,600	819,200	829,100	836,900	841,600
Kauai	45,100	46,000	47,700	49,000	50,700
Niihau	180	214	202	207	210

Source: Federal-State Cooperative Program for Local Population Estimates; Hawaii State Data Center.

Table 7.-- DE FACTO POPULATION, BY COUNTIES: 1970 TO 1989

[Includes all persons physically present in area, regardless of military status or usual place of residence. Includes visitors present but excludes residents temporarily absent, both calculated as averages for 12-month periods centered on estimate date]

Date		State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1970:	April 1 ...	796,500	650,700	65,700	31,800	48,400
	July 1	798,600	650,200	66,600	32,300	49,400
1971:	July 1	833,100	675,300	70,600	34,000	53,100
1972:	July 1	869,800	702,200	74,500	35,800	57,200
1973:	July 1	901,300	726,400	78,700	36,900	59,400
1974:	July 1	923,700	746,500	79,500	36,800	60,900
1975:	July 1	943,500	757,100	83,300	38,100	65,100
1976:	July 1	970,300	772,900	86,800	40,100	70,500
1977:	July 1	992,300	786,800	89,300	41,300	74,900
1978:	July 1	1,014,300	797,200	93,400	43,600	80,100
1979:	July 1	1,042,700	816,000	96,700	45,200	84,800
1980:	April 1 ...	1,052,700	822,000	98,700	46,100	85,900
	July 1	1,055,800	823,600	99,500	46,400	86,400
1981:	July 1	1,064,500	825,400	102,600	47,500	89,000
1982:	July 1	1,088,200	840,000	105,700	48,500	94,000
1983:	July 1	1,115,000	850,300	110,400	50,600	103,700
1984:	July 1	1,138,300	855,700	113,100	54,600	114,900
1985:	July 1	1,148,100	860,400	116,000	56,200	115,500
1986:	July 1	1,179,400	879,700	119,500	60,400	119,700
1987:	July 1	1,200,500	891,500	123,400	62,800	122,800
1988:	July 1	1,218,800	902,600	126,300	64,900	125,000
1989:	July 1	1,263,000	916,200	138,000	69,300	139,600

1/ Including Kalawao County (Kalaupapa Settlement).

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 10; Federal-State Cooperative Program for Local Population Estimates.

Table 8.-- ESTIMATED POPULATION, RESIDENT AND DE FACTO, AND DE FACTO DENSITY, BY COUNTIES AND ISLANDS: JULY 1, 1989

County and island	Resident population 1/		De facto population 2/		
	Number, 1989	Percent change, 1980-89	Number, 1989	Percent change, 1980-89	Per square mile, 1989
State total	1,112,100	15.3	1,263,000	20.0	196.6
County:					
Hawaii	122,300	32.9	138,000	39.8	34.2
Maui	97,100	37.1	139,500	62.6	120.1
Kalawao	127	-11.8	127	-11.8	9.5
Honolulu	841,600	10.4	916,200	11.5	1,536.5
Kauai	51,000	30.5	69,300	50.3	111.8
Island:					
Hawaii	122,300	32.9	138,000	39.8	34.2
Maui	88,100	40.2	129,300	68.4	177.5
Kahoolawe	-	...	-	...	0
Lanai	2,200	3.8	2,400	14.3	17.1
Molokai	6,900	14.1	7,900	14.5	30.3
Oahu 3/	841,600	10.4	916,200	11.5	1,536.5
Kauai	50,700	30.5	69,100	50.5	125.8
Niihau	210	-7.1	210	-7.1	3.0

1/ For definition, see headnote to table 5.
2/ For definition, see headnote to table 6.
3/ Includes the Northwestern Hawaiian Islands, except Midway.
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 9.-- RESIDENT POPULATION OF COUNTIES AND DISTRICTS: 1970, 1980, AND 1989

County and district (see map, pp. 6-7)	April 1, 1970	April 1, 1980	July 1, 1989	Percent change	
				1970 to 1980	1980 to 1989
State total	769,913	964,691	1,112,100	25.3	15.3
Hawaii County	63,468	92,053	122,300	45.0	32.8
Puna	5,154	11,751	21,000	128.0	78.6
South Hilo	33,915	42,278	45,700	24.7	8.1
North Hilo	1,881	1,679	1,400	-10.7	-13.8
Hamakua	4,648	5,128	5,400	10.3	5.0
North Kohala	3,326	3,249	3,900	-2.3	19.3
South Kohala	2,310	4,607	9,000	99.4	95.0
North Kona	4,832	13,748	23,000	184.5	67.4
South Kona	4,004	5,914	7,900	47.7	33.0
Ka'u	3,398	3,699	5,000	8.9	35.8
Maui County 1/	46,156	70,991	97,200	53.8	37.0
Hana	969	1,423	1,900	46.9	32.4
Makawao	9,979	19,005	26,900	90.4	41.5
Wailuku	22,219	32,111	45,000	44.5	40.1
Lahaina	5,524	10,284	14,400	86.2	39.6
Lanai	2,204	2,119	2,200	-3.9	6.1
Molokai	5,089	5,905	6,700	16.0	14.1
Kalawao	172	144	127	-16.3	-11.8
City & Co. of Honolulu	630,528	762,565	841,600	20.9	10.4
Honolulu	324,871	365,048	376,700	12.4	3.2
Koolaupoko	92,219	109,373	118,700	18.6	8.6
Koolauloa	10,562	14,195	17,200	34.9	20.8
Waialua	9,171	9,849	11,500	7.4	17.3
Wahiawa	37,329	41,562	45,800	11.3	10.2
Waianae	24,077	31,487	35,800	30.8	13.6
Ewa	132,299	191,051	235,900	44.4	23.5
Kauai County	29,761	39,082	51,000	31.3	30.4
Hanalei	1,182	2,668	5,700	125.7	114.7
Kawaihau	7,393	10,497	14,300	42.0	35.8
Lihue	6,766	8,590	10,500	27.0	21.7
Koloa	6,851	8,734	11,900	27.5	36.5
Waimea	7,569	8,593	8,600	13.5	0.0

1/ Including Kalawao County.

Source: U.S. Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Hawaii, PC80-1-A13 (October 1981), table 4; Federal-State Cooperative Program for Local Population Estimates and Hawaii State Data Center.

Table 10.-- RESIDENT POPULATION, OF ISLANDS, CITIES, TOWNS, AND VILLAGES: 1980

[This table presents data for the 101 "census designated places" defined by the Hawaii State Department of Planning and Economic Development, in cooperation with the Bureau of the Census, for the 1980 decennial census, under authority granted by Sec. 26-18, Hawaii Revised Statutes. Although described in the legislation as "cities, towns, and villages," none of these places is an independent municipality with separate governmental and taxing powers; the boundaries determined for these places are statistical rather than political]

Island and place 1/	Resident population
Hawaii	92,053
Captain Cook	2,008
Hakalau	250
Hawi	795
Hilo	35,269
Holualoa	1,243
Honokaa	1,936
Honomu	559
Kailua	4,751
Kainaliu	512
Kapaau	612
Keaau	775
Kealakekua	1,033
Kukuihaele	332
Laupahoehoe	500
Makapala	186
Mountain View	540
Naalehu	1,168
Ookala	401
Paauilo	755
Pahala	1,619
Pahoa	923
Papaaloa	264
Papaikou	1,567
Paukaa	544
Puako	257
Waimea	1,179
Wainaku	1,045
Remainder of island	31,030
Maui and Molokini	62,823
Haiku	619
Haliimaile	741
Hana	643
Honokahua	309
Kaanapali	541
Kahului	12,978
Kihei	5,644
Lahaina	6,095
Lower Paia	1,500
Makawao	2,900
Napili-Honokowai	2,446
Paia	193
Pauwela	468
Pukalani	3,950
Puunene	572
Waihee	413
Waikapu	698
Wailea	1,124
Wailuku	10,260
Remainder of island	10,729
Kahoolawe	-
Lanai	2,119
Lanai City	2,092
Remainder of island	27

Continued on next page.

Table 10.-- RESIDENT POPULATION, OF ISLANDS, CITIES, TOWNS, AND VILLAGES: 1980 -- Con.

Island and place 1/	Resident population
Molokai	6,049
Kaunakakai	2,231
Kualapuu	502
Maunaloa	633
Remainder of island	2,683
Oahu (including Northwestern Hawaiian Islands)	762,565
Ahuimanu	6,238
Aiea	32,879
Barbers Point Housing	1,373
Ewa	2,637
Ewa Beach	14,369
Haleiwa	2,412
Hauula	2,997
Heeia	5,432
Hickam Housing	4,425
Honolulu total	365,048
Oahu part	365,017
Northwestern Hawaiian Islands	31
Iroquois Point	3,915
Kaaawa	959
Kahaluu	2,925
Kahuku	935
Kailua	35,812
Kaneohe	29,919
Laie	4,643
Maili	5,026
Makaha	6,582
Makakilo City	7,691
Maunawili	5,239
Mililani Town	21,365
Mokapu	11,615
Oahu (con.):	
Nanakuli	8,185
Pearl City	42,575
Schofield Barracks	18,851
Wahiawa	16,911
Waialua	4,051
Waianae	7,941
Waimanalo	3,562
Waimanalo Beach	4,161
Waipahu	29,139
Waipio Acres	4,091
Whitmore Village	2,318
Remainder of island	46,344
Kauai	38,856
Anahola	915
Eleele	580
Hanalei	483
Hanamaulu	3,227
Hanapepe	1,417
Kalaheo	2,500
Kapaa	4,467
Kaumakani	888
Kekaha	3,260
Kilauea	895
Koloa	1,457
Lihue	4,000
Poipu	685
Princeville	500
Puhi	991
Wailua	1,587
Waimea	1,569
Remainder of island	9,435
Niihau, Lehua and Kaula	226

1/ For boundaries of places, see Hawaii State Department of Planning and Economic Development, Statistical Boundaries of Cities, Towns and Villages As Approved Through December 31, 1979 (Report SB-A15, March 13, 1980).

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A13, Hawaii (October 1981), table 4, and unpublished final counts for places under 300 based on enumeration district data supplied February 13, 1981.

Table 11.-- POPULATION RANKING OF THE STATE, HONOLULU, AND COUNTIES: 1980, 1987, AND 1988

Comparison 1/	Resident population, 1988	Ranking		
		1980	1987	1988
State of Hawaii:				
Among the 50 States and D.C.	1,098,000	39	39	39
Among the 50 States	1,098,000	39	39	39
Honolulu MSA: 2/				
Among all MSAs and CMSAs	838,500	47	49	50
City and County of Honolulu: 3/				
Among all counties	838,500	43	39	39
Among all municipalities	838,500	12	(NA)	11
Honolulu CDP: 4/				
Among all incorp. places and CDPs ...	376,110	36	(NA)	37
Hawaii County 5/	117,500	447	396	389
Kauai County 5/	49,300	979	876	850
Maui County 5/	93,000	577	495	483

NA Not available.

1/ MSA, Metropolitan Statistical Area; CMSA, Consolidated MSA; CDP, Census Designated Place, that is, an unincorporated urban place.

2/ The Honolulu MSA consists of the City and County of Honolulu, comprising Oahu and the Northwestern Hawaiian Islands (except Midway).

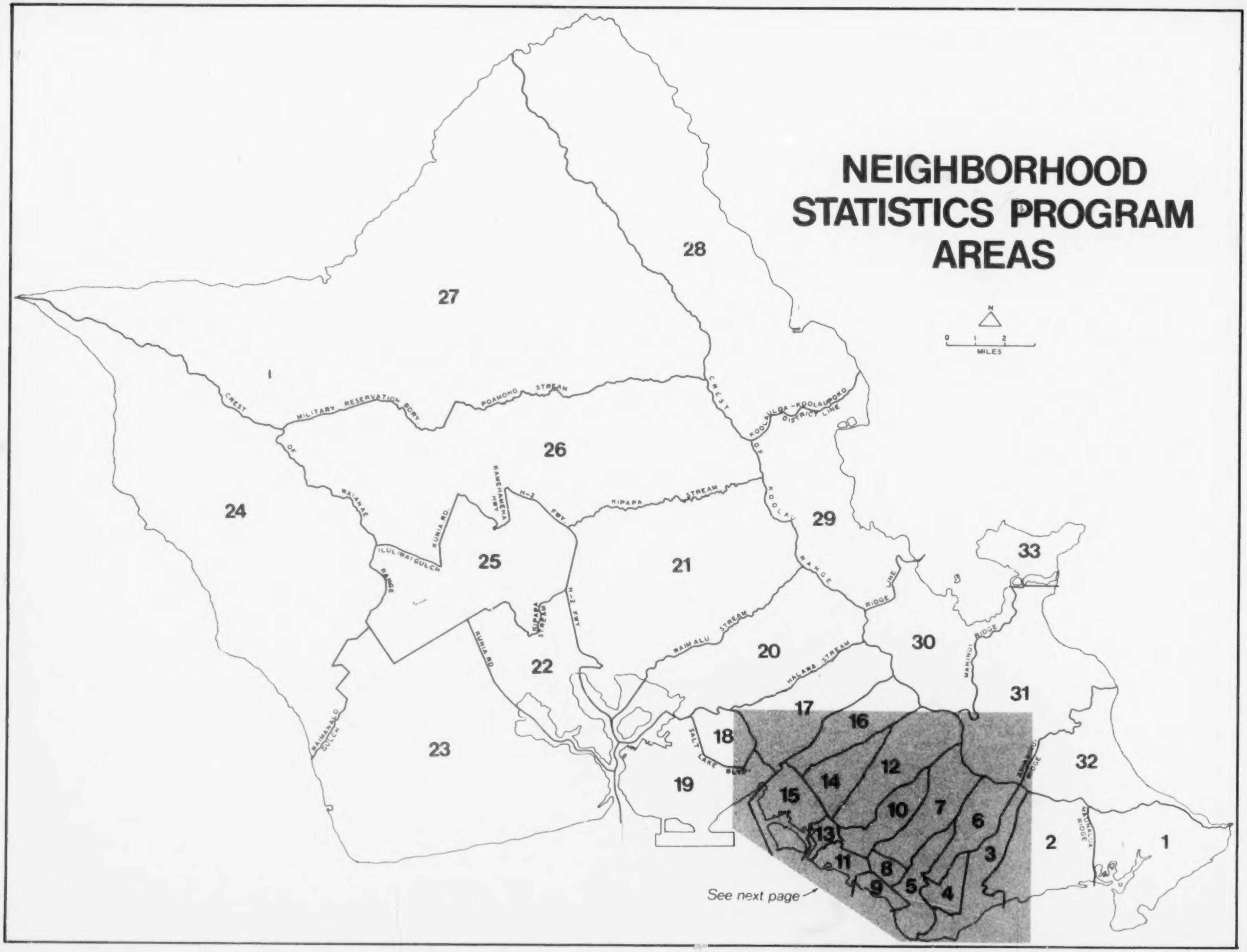
3/ The City and County of Honolulu consists of Oahu and the Northwestern Hawaiian Islands (except Midway).

4/ The Honolulu CDP consists of Honolulu District, comprising the area between Red Hill and Makapuu Point, south and southwest of the crest of the Koolau Mountains, and the Northwestern Hawaiian Islands (except Midway). The 1988 population estimate shown here, prepared by the Bureau of the Census, differs slightly from those by the Honolulu Department of General Planning (383,704) and DBED (379,300).

5/ Among all U.S. counties. Kalawao is included with Maui.

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A1, tables 16, 18, and 27, and press releases, printouts, and records.

NEIGHBORHOOD STATISTICS PROGRAM AREAS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CREST OF KOOLAU RANGE
KOOLAULOA - KOOLAUPOKO DISTRICT LINE
CREST OF WAIANAE RANGE
MILITARY RESERVATION BDRY
POAMOHO STREAM
KIPAPA STREAM
KAMEHAMEHA HWY
H-2 FWY
KUNIA RD.
ILULIWAI GULCH
KUNIA RD
KIPAPA STREAM
WAIMALU STREAM
HALAWA STREAM
RIDGE LINE
MAKINUI RIDGE
SALT LAKE BLVD
WAIMANALO GULCH
MAUNALUA RIDGE

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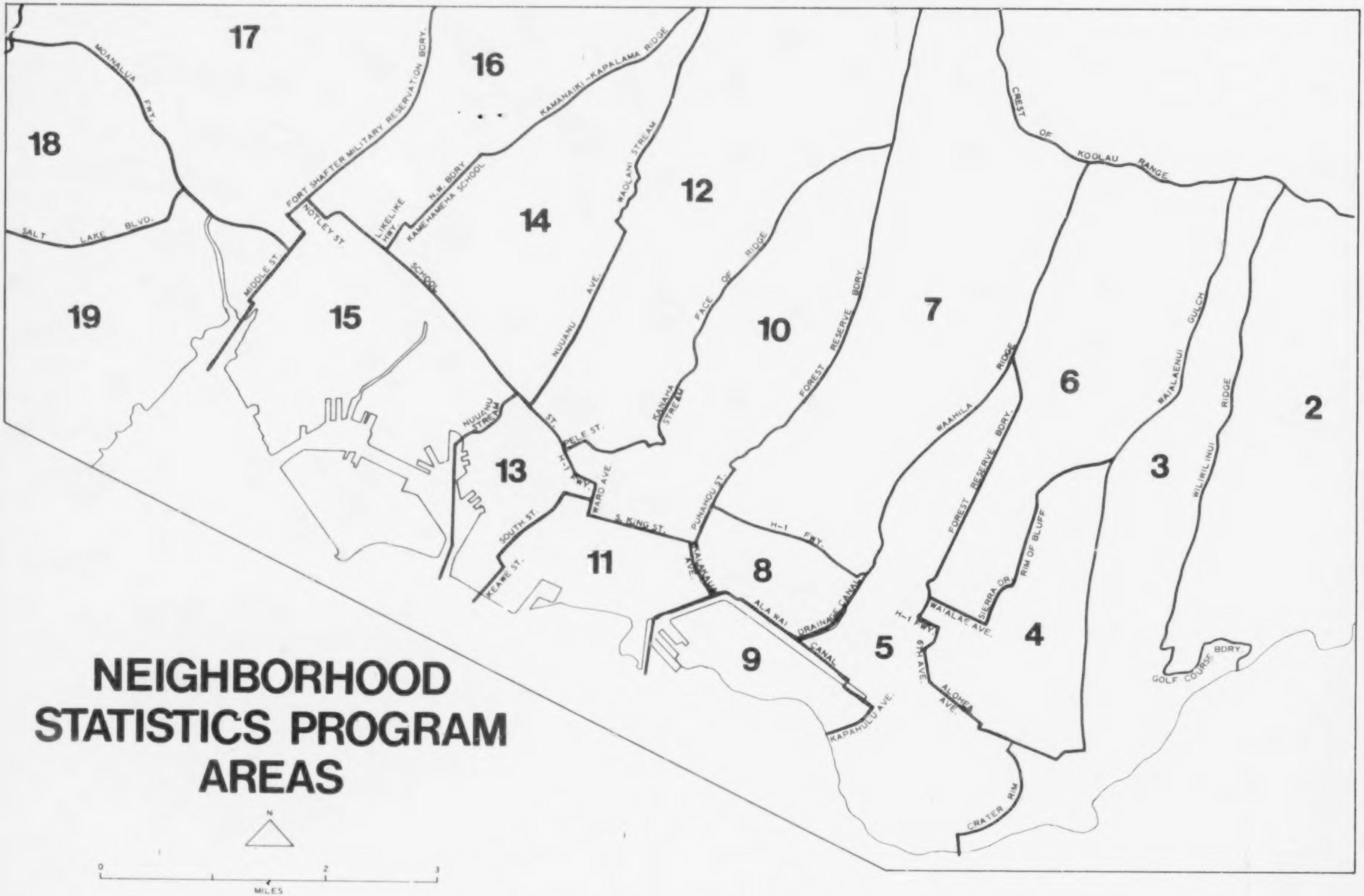

NEIGHBORHOOD STATISTICS PROGRAM AREAS

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18
19
CREST OF KOOLAU RANGE
WILIWILINUI RIDGE
WAIALAENUI GULCH
GOLF COURSE BDRY.
RIM OF BLUFF
SIERRA DR.
FOREST RESERVE BDRY.
WAAHILA RIDGE
WAIALAE AVE.
H-1 FWY.
6TH AVE.
ALOHEA AVE.
CRATER RIM
KAPAHULU AVE.
ALA WAI CANAL
DRAINAGE CANAL
KALAKAUA AVE.
PUNAHOU ST.
FACE OF RIDGE
KANAHA STREAM
S. KING ST.
WARD AVE.
PELE ST.
NUUANU AVE.
WAOLANI STREAM
KAMANAIKI-KAPALAMA RIDGE
KAMEHAMEHA SCHOOL N.W. BDRY.
LIKELIKE HWY.
SCHOOL ST.
NUUANU STREAM
SOUTH ST.
KEAWE ST.
NOTLEY ST.
FORT SHAFTER MILITARY RESERVATION BDRY.
MOANALUA FWY.
SALT LAKE BLVD.
MIDDLE ST.
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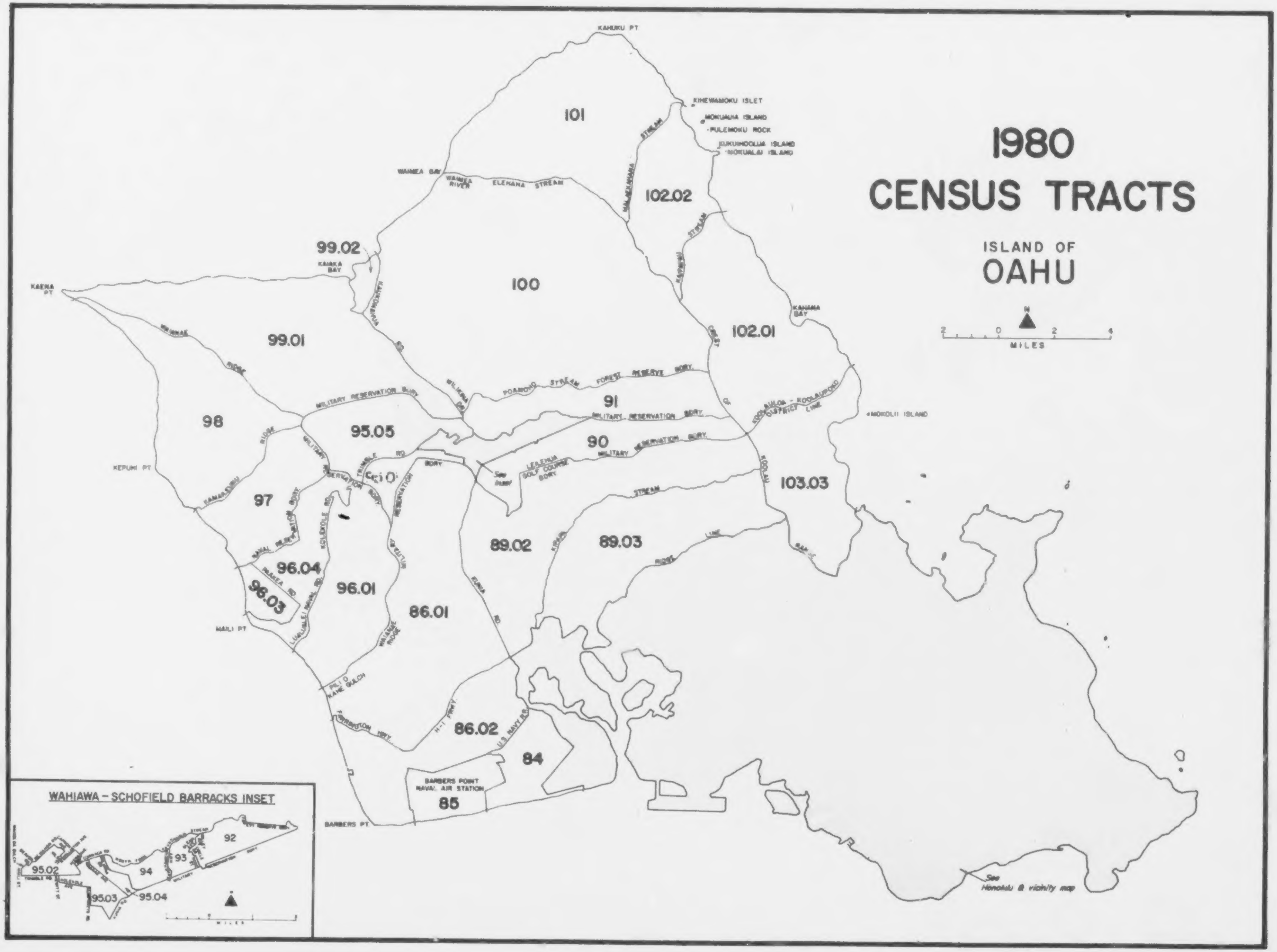
1
2
3
MILES

Table 12.-- POPULATION, 1980 AND 1988, AND HOUSEHOLDS, 1980, FOR OAHU NEIGHBORHOODS

Neighborhood (see maps on pp. 24-25)	Resident population			Households, 1980
	April 1, 1980	July 1, 1988	Percent increase	
Oahu total	762,534	838,500	10.0	230,214
1 Hawaii Kai	25,603	28,636	11.8	7,518
2 Kuliouou	14,172	15,949	12.5	4,316
3 Waialae-Kahala	11,474	11,478	0.0	3,882
4 Kaimuki	19,603	20,057	2.3	6,314
5 Diamond Head/ Kapahulu	21,191	21,770	2.7	7,853
6 Palolo	14,110	14,167	0.4	4,092
7 Manoa	22,605	24,052	6.4	6,536
8 McCully/Moiliili	26,644	26,720	0.3	12,188
9 Waikiki	17,384	17,836	2.6	9,852
10 Makiki/Tantalus	28,695	28,568	-0.4	14,050
11 Ala Moana/Kakaako	10,032	11,263	12.3	5,505
12 Nuuanu/Punchbowl	16,166	16,947	4.8	5,361
13 Downtown	8,674	10,985	26.6	4,406
14 Liliha/Kapalama	21,068	23,425	11.2	6,429
15 Kalihi/Palama	40,144	39,754	-1.0	10,837
16 Kalihi Valley	17,613	17,928	1.8	3,885
17 Moanalua	12,948	13,015	0.5	3,400
18 Aliamanu/Salt Lake	31,199	37,360	19.7	9,290
19 Airport	28,436	28,643	0.7	5,416
20 Aiea	30,084	34,393	14.3	8,925
21 Pearl City	42,577	48,548	14.0	11,140
22 Waipahu	33,927	51,221	51.0	8,261
23 Ewa	35,585	38,601	8.5	8,988
24 Waianae Coast	31,487	35,262	12.0	7,964
25 Mililani/Waipio	26,134	32,753	25.3	7,801
26 Wahiawa	41,562	43,653	5.0	10,271
27 North Shore	13,061	13,983	7.1	3,899
28 Koolauloa	10,983	12,417	13.1	2,687
29 Kahaluu	11,782	12,979	10.2	3,360
30 Kaneohe	35,553	41,924	17.9	9,698
31 Kailua/Mokapu	52,906	55,072	4.1	13,953
32 Waimanalo	9,132	9,140	0.1	2,137

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Neighborhood Statistics Program, Hawaii, PHC80-SP1-13 (1983); Honolulu Department of General Planning, records.



1980 CENSUS TRACTS

ISLAND OF
OAHU

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4
MILES
KAHUKU PT
KIHEWAMOKU ISLET
MOKUAUIA ISLAND
PULEMOKU ROCK
KUKUIHOOLUA ISLAND
MOKUALAI ISLAND
WAIMEA BAY
WAIMEA RIVER
ELEHAHA STREAM
STREAM
MALAEKAHANA
KAIPAPAU
STREAM
KAHANA BAY
CREST
OF
KOOLAU
KOOLAULOA - KOOLAUPOKO DISTRICT LINE
MOKOLII ISLAND
KAENA PT
KAIAKA BAY
KAUKONAHUA RD.
WILIKINA DR.
WAIANAE RIDGE
RIDGE
MILITARY RESERVATION BDRY.
POAMOHO STREAM FOREST RESERVE BDRY.
MILITARY RESERVATION BDRY.
MILITARY RESERVATION BDRY.
LEILEHUA GOLF COURSE BDRY.
See inset
TRIMBLE RD
BDRY
MILITARY RESERVATION BDRY.
KOLEKOLE RD.
NAVAL RESERVATION BDRY.
KAMAILEUNU
PAKEA RD.
LUALUALEI NAVAL RD.
WAIANAE RIDGE
MILITARY
KUNIA RD.
KIPAPA
STREAM
RIDGE LINE
RANGE
KEPUHI PT
MAILI PT
PILI O KAHE GULCH
FARRINGTON HWY
H-1 FRWY
U.S. NAVY RR
BARBERS POINT NAVAL AIR STATION
BARBERS PT
See Honolulu & vicinity map
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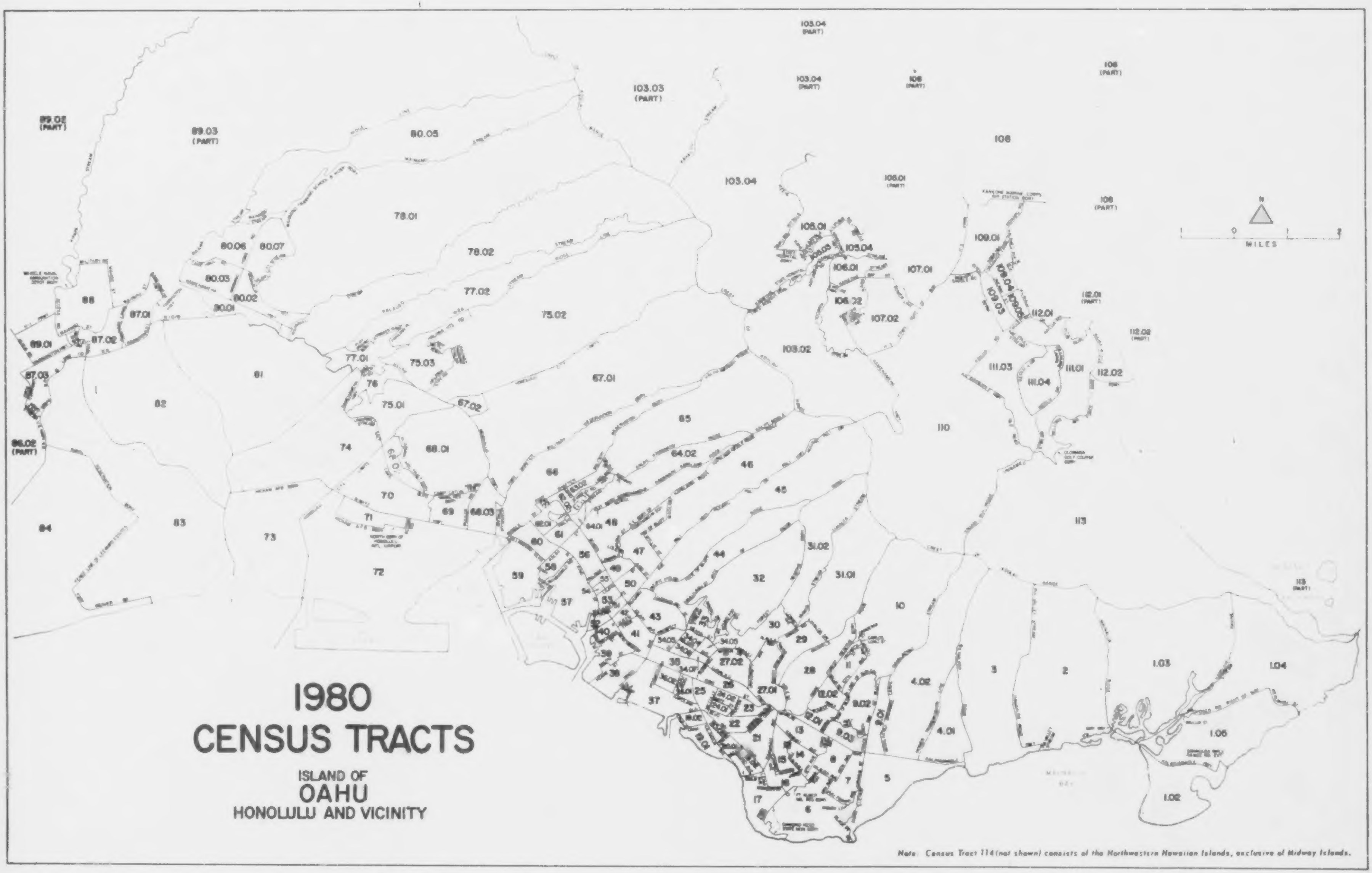
100
102.02
102.01
99.02
99.01
98
97
91
90
95.05
96.04
96.03
96.01
86.01
89.02
89.03
103.03
86.02
84
85
WAHIAWA - SCHOFIELD BARRACKS INSET
92
93
94
95.02
95.03
95.04
MILES



1980 CENSUS TRACTS

ISLAND OF
OAHU
HONOLULU AND VICINITY

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1
2
N
89.02 (PART)
89.03 (PART)
80.05
103.03 (PART)
103.04 (PART)
108 (PART)
108
103.04
105.01 (PART)
78.01
80.06
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80.02
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86.02 (PART)
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64.02
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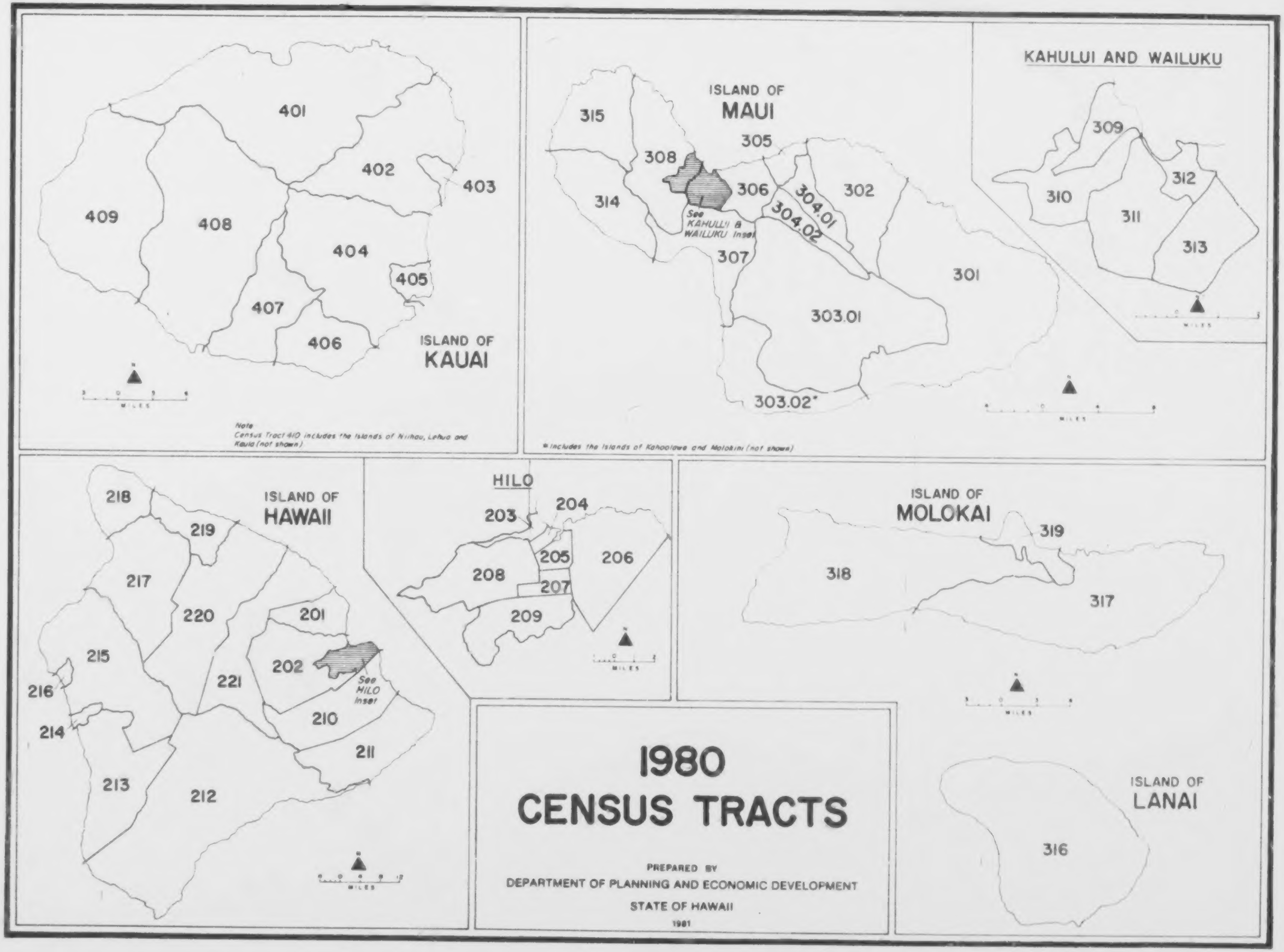
113 (PART)

Note: Census Tract 114 (not shown) consists of the Northwestern Hawaiian Islands, exclusive of Midway Islands.


ISLAND OF KAUAI
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MILES
ISLAND OF MAUI
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See KAHULUI & WAILUKU Inset
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303.01
303.02*
MILES
KAHULUI AND WAILUKU
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MILES
ISLAND OF HAWAII
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See HILO Inset
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MILES
HILO
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208
209
MILES
ISLAND OF MOLOKAI
319
318
317
MILES
ISLAND OF LANAI
316

Note
Census Tract 410 includes the Islands of Niihau, Lehua and Kaula (not shown)

* Includes the Islands of Kahoolawe and Molokini (not shown)

1980
CENSUS TRACTS

PREPARED BY
DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT
STATE OF HAWAII
1981

Table 13.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1988

[See maps, pp. 27-28]

Census tract	Apr. 1, 1980	July 1, 1988	Census tract	Apr. 1, 1980	July 1, 1988
Total	762,565	838,500	Honolulu Dist. con.		
			26	4,819	4,835
Honolulu District	365,048	383,704	27..01	5,291	5,351
1.02	2,067	2,071	27.02.	5,344	5,455
1.03	10,784	12,504	28	3,679	4,404
1.04	7,202	8,308	29	1,583	1,656
1.05	5,550	5,753	30	4,491	4,733
2	4,970	6,187	31.01	3,923	4,176
3	5,518	5,539	31.02	3,716	3,923
4.01	2,734	3,118	32	1,132	1,136
4.02	3,438	3,753	33	1,069	1,118
5	4,711	4,543	34.03	5,074	5,141
6	1,654	1,663	34.04	4,511	4,678
7	3,350	3,380	34.05	3,014	3,046
8	4,137	4,203	34.06	5,238	5,533
9.01	2,621	2,623	34.07	1,033	542
9.02	3,912	4,021	35	4,399	4,447
9.03	2,932	2,973	36.01	4,326	5,094
10	3,213	3,296	36.02	2,661	2,767
11	4,077	4,134	37	2,477	2,355
12.01	3,227	3,345	38	387	805
12.02	3,593	3,690	39	115	69
13	4,642	4,673	39.99 1/	108	108
14	2,797	2,800	40	820	1,067
15	3,857	3,875	41	4,320	4,336
16	4,617	4,658	42	2,637	2,642
17	2,492	2,296	43	5,339	5,429
18.01	1,140	1,228	44	5,274	5,324
18.02	3,259	3,772	45	5,042	5,637
19.01	1,412	1,259	46	3,928	3,972
19.02	5,413	4,823	47	4,893	4,981
20.01	2,560	2,971	48	6,146	7,870
20.02	3,600	3,782	49	3,165	3,163
21	3,619	3,624	50	4,075	4,621
22	6,782	6,685	51	1,611	2,385
23	5,073	5,045	52	858	2,269
24.01	2,912	2,969	53	4,529	4,542
24.02	3,042	3,236	54	1,718	1,722
25	4,016	3,949	55	2,106	2,130

Continued on next page.

Table 13.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1988--Con.

[See maps, pp. 27-28]

Census tract	Apr. 1, 1980	July 1, 1988
Honolulu Dist. con.		
56	5,794	6,322
57	1,556	1,410
57.99 1/	592	592
58	3,524	3,494
59	3,854	3,599
59.99 1/	21	21
60	5,663	5,334
61	3,381	3,298
62.01	4,741	4,620
62.02	2,665	2,671
63.01	3,315	3,330
63.02	2,945	3,012
64.01	1,737	1,802
64.02	5,579	5,623
65	4,037	4,161
66	2,716	2,610
67.01	7,477	7,645
67.02	2,755	2,761
68.01	20,689	24,511
68.02	4,890	5,070
68.03	-	-
69	3,109	3,115
70	4,251	4,260
71	2,588	2,718
72	1,364	1,483
114	31	31
Rest of county	397,517	454,793
73	6,393	6,406
73.99 1/	-	-
74	3,138	3,068
74.99 1/	7,593	7,593
75.01	7,467	10,076
75.02	444	444
75.03	4,865	5,190
76	1,556	1,626
77.01	4,645	4,779
77.02	4,838	4,923
78.01	12,813	15,978
78.02	11,367	14,832
Rest of county, con.		
80.01	1,498	1,479
80.02	2,987	2,979
80.03	3,377	5,445
80.05	7,465	7,791
80.06	5,906	5,995
80.07	6,473	6,507
81	2,580	2,581
82	-	-
83	12,437	12,446
84	7,643	7,757
85	2,942	2,947
86.01	8,559	10,246
86.02	4,653	5,849
86.99 1/	21	21
87.01	7,284	7,329
87.02	3,854	3,758
87.03	3,468	3,511
88	4,484	5,534
89.01	7,861	8,003
89.02	25,874	38,913
89.03	6,566	17,083
90	2,413	2,418
91	3,339	3,969
92	7,420	8,102
93	4,451	4,389
94	5,040	5,104
95.01	3,587	3,739
95.02	5,326	5,211
95.03	6,076	6,075
95.04	955	1,083
95.05	2,955	2,917
96.01	5,159	5,740
96.03	5,711	6,116
96.04	4,165	4,184
97	10,524	11,366
98	5,928	7,775
99.01	5,350	5,784
99.02	2,620	2,795
100	1,879	1,919
101	4,491	5,926

Continued on next page.

Table 13.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1988--Con.

[See maps, pp. 27-28]

Census tract	Apr. 1, 1980	July 1, 1988	Census tract	Apr. 1, 1980	July 1, 1988
Rest of county, con.			Rest of county, con.		
102.01	3,952	4,029	108.99 1/	37	37
102.02	5,752	5,948	109.01	3,161	3,237
103.02	3,232	3,579	109.03	4,158	4,342
103.03	3,593	3,878	109.04	3,506	3,664
103.04	9,784	12,170	109.05	2,536	2,621
105.01	8,712	10,927	110	4,218	4,840
105.03	1,804	1,569	111.01	7,966	8,988
105.04	4,794	5,301	111.03	3,872	4,073
106.01	3,019	3,348	111.04	5,370	5,423
106.02	4,994	5,502	112.01	4,841	5,044
107.01	3,680	3,884	112.02	1,663	1,685
107.02	3,723	4,277	113	9,132	9,134
108	11,578	11,592			

1/ Vessels anchored off the indicated tract.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Honolulu, Hawaii, Standard Metropolitan Area, PHC80-2-183 (June 1983), table P-1; City and County of Honolulu, Department of General Planning, unpublished 1988 estimates.

Table 14.-- RESIDENT POPULATION OF HAWAII, KALAWAO, KAUAI, AND MAUI COUNTIES, BY CENSUS TRACTS: 1980

[See maps, p. 29]

County and census tract	Population
Hawaii County	92,053
201	5,261
202	1,748
203	4,292
204	4,003
205	5,672
205.99 1/	25
206	3,702
207	7,690
208	7,017
209	2,868
210	7,055
211	4,696
212	3,699
213	3,560
214	2,354
215	7,610
216	6,138
217	4,607
218	3,249
219	3,287
220	1,841
221	1,679
Kalawao County	144
319	144
Kauai County	39,082
401	2,668
402	6,030
403	4,467
404	4,590
Kauai County -- con.:	
405	4,000
406	3,879
407	4,855
408	3,111
409	5,256
410	226
Maui County	70,991
301	1,423
302	3,567
303.01	3,850
303.02	1,227
304.01	4,366
304.02	4,285
305	1,710
306	220
307	6,020
307.99 1/	15
308	1,584
309	6,542
310	4,132
311	10,424
312	2,602
313	572
314	6,654
315	3,630
316	2,119
317	3,574
318	2,331

1/ The ".99" census tracts consist of vessels anchored off the indicated tract; for example, persons living aboard ships in Maalaea Bay, adjacent to tract 307, are assigned to tract 307.99.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Hawaii, Selected Areas, PHC80-2-13 (June 1983).

Table 15.-- RESIDENT AND DE FACTO POPULATION AND EMPLOYED PERSONS, FOR WAIKIKI: 1960 TO 1988

[For definitions of resident and de facto population, see table 3, footnotes 1 and 3. For earlier years, 1920-1950, see Data Book 1987, table 14. Waikiki is the area bounded by the Ala Wai Canal, Kapahulu Avenue, and the Pacific Ocean]

Subject	1960	1970	1980	1988	Density 1/	
					1980	1988
Resident population	11,075	13,124	17,384	17,835	28.4	29.1
Temporarily absent 2/ ..	36	176	174	346	0.3	0.6
De facto population	18,753	34,874	63,710	87,957	103.9	143.5
Visitors present 2/	7,714	21,926	46,500	70,468	75.9	115.0
Employed persons: 3/						
Living in Waikiki	6,327	7,866	9,593	(NA)	15.6	(NA)
Working in Waikiki	(NA)	(NA)	30,011	(NA)	49.0	(NA)

NA Not available.
1/ Per acre. Based on net land area of 613 acres.
2/ Annual averages. Estimated.
3/ Includes armed forces.
Source: Visitors present and residents absent estimated by Hawaii State Data Center from Hawaii Visitors Bureau survey data. Resident population and employment from U.S. Bureau of the Census, census tract bulletins, 1960-1980, Data Book 1987, table 380, and present volume, table 13.

Table 16.-- POPULATION AND LAND AREA, URBAN AND RURAL, BY COUNTIES: 1980

Subject	State total	Hono-lulu	Hawaii	Kauai	Maui
Land area (square miles)	6,425	596	4,034	620	1,175
Urban 1/	278	184	61	12	21
Rural	6,147	412	3,973	608	1,154
Resident population	964,691	762,565	92,053	39,082	70,991
Urban 1/	834,592	735,291	40,020	17,454	41,827
Rural	130,099	27,274	52,033	21,628	29,164

1/ Includes both the Honolulu Urbanized Area (135 square miles, 582,463 inhabitants) and Kailua-Kaneohe Urbanized Area (34 square miles, 105,712 inhabitants).

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A1, tables 25 and 34, and PC80-1-A13, table 3; Hawaii State Department of Planning and Economic Development, Statistical Memorandum 83-6 (May 18, 1983).

Table 17.-- CENTERS OF POPULATION, BY COUNTIES: 1980

County	North latitude (degrees)	West longitude (degrees)	Approximate location
State of Hawaii ..	21.2009	157.6129	7 mi. SE of Koko Head
Hawaii County	19.7015	155.3667	17 mi. W of Hilo
Maui County	20.8809	156.5184	1 mi. SW of Wailuku PO
Kalawao County	21.1930	156.9766	Kalaupapa
Honolulu County	21.3704	157.8946	1457 Ala Aolani St.
Kauai County	22.0065	159.4659	3.5 mi. N of Knudsen Gap

Source: Hawaii State Census Statistical Areas Committee, Centers of Population, 1960-1980 (Report CTC-59, August 17, 1984).

Table 18.-- POPULATION PROJECTIONS, RESIDENT AND DE FACTO, BY COUNTIES: 1985 TO 2010

[Thousands. As of July 1. Series M-K projections, developed by DBED]

Type of population and year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui 1/
Resident population: 2/						
1985	1,051.5	811.1	240.4	109.5	45.4	85.5
1990	1,137.2	861.6	275.6	124.6	54.1	96.8
1995	1,225.2	910.4	314.9	142.5	61.1	111.2
2000	1,285.1	932.8	352.4	160.4	68.2	123.9
2005	1,350.8	961.1	389.7	180.8	75.5	133.4
2010	1,435.5	999.5	435.9	206.1	84.6	145.2
De facto population: 3/						
1985	1,149.6	861.6	288.1	116.1	56.2	115.7
1990	1,269.1	928.0	341.2	134.4	70.1	136.7
1995	1,382.3	983.1	399.2	158.6	81.7	159.0
2000	1,468.6	1,012.5	456.1	183.0	94.0	179.1
2005	1,560.3	1,048.5	511.9	211.0	104.8	196.0
2010	1,674.2	1,094.7	579.5	243.0	120.3	216.2

1/ Includes Kalawao.

2/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 4.

Table 19.-- RESIDENT POPULATION, BY AGE AND SEX: 1980 AND 1989

[In thousands. Includes armed forces stationed or homeported in Hawaii. The 1989 estimates are provisional]

Age group	April 1, 1980 (census)			July 1, 1989 (estimates)		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	965	495	470	1,112	565	547
Under 5 years	78	40	38	89	46	43
5 to 14 years	148	76	72	157	81	76
15 to 24 years	192	105	87	169	90	78
25 to 34 years	180	92	88	196	101	94
35 to 44 years	111	56	55	175	88	88
45 to 54 years	94	45	50	107	51	56
55 to 64 years	85	42	43	100	50	50
65 to 74 years	49	26	23	75	36	39
75 to 84 years	21	10	11	34	17	17
85 years and over ..	6	2	4	10	4	6
5 to 17 years	198	102	96	199	102	97
18 to 24 years	142	79	63	127	69	58
25 to 44 years	291	148	143	371	189	182
45 to 64 years	180	87	92	207	102	106
16 years and over ..	723	370	352	853	432	422
18 years and over ..	689	353	336	825	417	407
21 years and over ..	631	320	310	771	388	382
65 years and over ..	76	38	38	119	57	62
Median age	28.3	27.6	29.1	32.3	31.5	33.2

Source: U.S. Bureau of the Census, "State Population and Household Estimates: July 1, 1989," Current Population Reports, Population Estimates and Projections, Series P-25, No. 1058 (March 1990), p. 29.

Table 20.-- RESIDENT POPULATION, BY AGE AND SEX, FOR COUNTIES: JULY 1, 1985

[These experimental estimates may reflect special problems relating to identification of race and military population. Methodology published in Current Population Reports, Series P-23, No. 103 and 158]

Sex and age	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Total	1,049,781	810,130	109,262	45,237	85,152
Males	534,769	411,597	56,225	23,544	43,403
Under 5 years	47,593	35,971	5,362	2,221	4,039
5 to 9 years	37,078	27,522	4,838	1,610	3,108
10 to 14 years	37,988	28,574	4,606	1,662	3,146
15 to 19 years	39,343	31,041	3,868	1,562	2,872
20 to 24 years	57,196	48,842	3,773	1,690	2,891
25 to 34 years	100,408	76,710	10,004	4,547	9,147
35 to 44 years	71,342	55,025	7,543	3,144	5,630
45 to 54 years	46,785	36,566	4,571	1,897	3,751
55 to 64 years	49,782	37,675	5,486	2,365	4,256
65 to 74 years	30,797	22,332	3,820	1,728	2,917
75 years and over	16,457	11,339	2,354	1,118	1,646
Females	515,012	398,533	53,037	21,693	41,749
Under 5 years	43,139	32,495	5,107	2,075	3,462
5 to 9 years	35,835	26,639	4,266	1,690	3,240
10 to 14 years	35,307	26,582	3,758	1,887	3,080
15 to 19 years	37,591	29,702	3,778	1,288	2,823
20 to 24 years	48,107	39,607	3,795	1,532	3,173
25 to 34 years	94,655	73,192	9,670	3,870	7,923
35 to 44 years	67,495	53,014	6,309	2,708	5,464
45 to 54 years	49,794	39,132	4,939	1,971	3,752
55 to 64 years	52,810	40,569	5,620	2,224	4,397
65 to 74 years	31,574	23,599	3,662	1,539	2,774
75 years and over	18,705	14,002	2,133	909	1,661
Median age	30.3	30.1	30.9	31.5	31.2
Male	29.8	29.3	30.8	31.9	31.2
Female	31.0	30.9	31.1	31.1	31.3

Source: U.S. Bureau of the Census, County Population Estimates (Experimental) by Age, Sex, and Race: 1980 to 1985 (September 1988).

Table 21.-- PROJECTED RESIDENT POPULATION, BY AGE AND SEX: 1990, 2000, AND 2010

[Thousands. As of July 1. Series M-K projections, developed by DBED. For 1980 estimate see Data Book 1984, table 22]

Age in years	1990			2000			2010		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total .	1,137.2	577.7	559.5	1,285.1	648.8	636.3	1,435.5	722.6	712.8
Under 5	86.9	44.6	42.2	88.4	45.5	43.0	97.9	50.4	47.6
5 to 9	91.5	46.5	45.0	86.9	44.5	42.4	93.7	47.6	46.1
10 to 14 ...	77.9	39.9	38.0	86.9	44.0	42.9	89.2	45.2	44.0
15 to 19 ...	80.7	44.1	36.6	98.2	51.8	46.4	95.0	51.0	44.0
20 to 24 ...	103.5	58.6	44.9	108.1	63.1	45.0	119.2	68.4	50.8
25 to 29 ...	89.0	44.9	44.1	96.1	51.8	44.3	115.4	60.4	55.0
30 to 34 ...	100.5	51.1	49.4	95.8	48.4	47.4	101.8	53.2	48.6
35 to 39 ...	95.3	48.1	47.2	88.1	43.3	44.8	95.2	50.1	45.1
40 to 44 ...	83.0	41.5	41.5	96.9	48.5	48.4	92.6	46.1	46.5
45 to 49 ...	62.3	30.5	31.8	92.0	45.6	46.4	85.2	41.0	44.2
50 to 54 ...	46.6	22.0	24.6	80.9	39.7	41.1	94.4	46.4	48.0
55 to 59 ...	45.9	21.8	24.2	60.5	29.2	31.3	89.9	43.9	46.0
60 to 64 ...	48.9	24.0	24.9	45.4	21.0	24.4	77.9	37.6	40.3
65 to 69 ...	45.8	22.5	23.2	43.0	19.7	23.3	56.4	26.4	30.0
70 to 74 ...	33.4	16.0	17.4	42.4	19.8	22.6	40.0	17.6	22.3
75 to 79 ...	22.7	11.1	11.6	36.1	16.6	19.5	34.3	14.7	19.6
80 to 84 ...	13.8	6.8	7.0	22.8	9.8	13.0	29.5	12.3	17.2
85 and over	9.6	3.6	6.0	16.5	6.5	10.0	27.8	10.3	17.5
Median age .	31.9	31.0	32.9	34.1	32.5	35.8	35.3	33.6	37.2

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), pp. 6-7.

Table 22.-- ETHNIC STOCK BY MILITARY STATUS: 1987

[Excludes persons in institutions or military barracks, on Niihau, or in Kalawao. Based on a sample survey of 17,733 persons]

Ethnic stock 1/	Total		Armed forces	Military dependents	Other civilians
	Number	Percent			
All groups	1,044,031	100.0	37,626	65,134	941,271
Unmixed	724,954	69.4	35,265	53,768	635,921
Caucasian	250,102	24.0	24,613	33,261	192,228
Japanese	241,637	23.1	497	1,815	239,325
Chinese	50,138	4.8	74	375	49,689
Filipino	117,471	11.3	1,510	5,408	110,553
Hawaiian	10,962	1.0	-	-	10,962
Korean	11,892	1.1	35	1,240	10,617
Black	20,656	2.0	7,769	9,506	3,381
Puerto Rican	3,311	0.3	379	518	2,414
Samoan	6,249	0.6	73	384	5,792
Other unmixed or unknown .	12,536	1.2	315	1,261	10,960
Mixed	319,077	30.6	2,361	11,366	305,350
Part Hawaiian	199,776	19.1	560	1,447	197,769
Non Hawaiian	119,301	11.4	1,801	9,919	107,581

1/ Definitions used in this table differ from those in reports of the U.S. Bureau of the Census. Persons of mixed race are shown separately in this table but in 1980 census tabulations are assigned to one of the unmixed groups on the basis of self-identification or race of mother.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 23.-- ETHNIC STOCK, BY COUNTIES: 1987

[Excludes persons in institutions or military barracks, on Niihau or in Kalawao. Based on a sample survey of 17,733 persons]

Ethnic stock 1/	State total 2/	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
All groups	1,044,031	796,176	112,945	46,224	88,686
Unmixed	724,954	567,319	71,918	30,268	55,999
Caucasian	250,102	189,382	29,005	8,679	23,036
Japanese	241,637	190,176	25,810	9,842	15,809
Chinese	50,138	47,912	1,446	247	533
Filipino	117,471	84,034	10,703	10,362	12,372
Hawaiian	10,962	5,424	2,989	510	2,039
Korean	11,892	11,001	126	116	649
Black	20,656	20,362	174	35	85
Puerto Rican	3,311	2,217	565	180	349
Samoan	6,249	6,249	-	-	-
Other unmixed and unknown	12,536	10,562	550	297	1,127
Mixed	319,077	228,857	41,577	15,956	32,687
Part Hawaiian	199,776	138,685	27,792	10,275	23,024
Non Hawaiian	119,301	90,172	13,785	5,681	9,663

1/ Definitions used in this table differ from those in reports of the U.S. Bureau of the Census. Persons of mixed race are shown separately in this table but in 1980 census tabulations are assigned to one of the unmixed groups on the basis of self-identification or race of mother.

2/ Because of technical reasons, data by race differ slightly from figures in preceding table.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 24.-- POPULATION BY RACE AND SPANISH ORIGIN, BY COUNTIES: 1980

[Based on a 15.7-percent sample]

Race and Spanish origin	State total	City and Co. of Honolulu	Other counties			
			Hawaii	Kalawao	Kauai	Maui
Total persons	964,691	762,565	92,053	144	39,082	70,847
Race: 1/						
White	331,925	262,604	32,198	21	11,565	25,537
Black	17,687	17,203	278	-	59	147
American Indian	2,833	2,348	316	-	63	106
Eskimo	74	69	-	-	-	5
Aleut	69	28	17	-	-	24
Japanese	239,734	190,218	24,446	23	9,606	15,441
Chinese	55,916	52,301	1,600	9	587	1,419
Filipino	132,075	96,421	12,746	26	9,944	12,938
Korean	17,453	16,566	522	1	128	236
Asian Indian	708	637	25	-	-	46
Vietnamese	3,403	3,251	139	-	-	13
Hawaiian	118,251	81,868	17,317	59	6,057	12,950
Guamanian	1,630	1,470	49	-	64	47
Samoan	14,349	13,975	219	3	63	89
Other Asian and Pacific Islander 2/	7,140	6,410	490	2	24	214
Race n.e.c.	21,444	17,196	1,691	-	922	1,635
Spanish origin: 3/						
Spanish origin	71,399	54,619	8,261	1	3,226	5,292
Not of Spanish origin ..	893,292	707,946	83,792	143	35,856	65,555

n.e.c. Not elsewhere classified.

1/ Persons of mixed race classified by self-identification or race of mother. Data are not comparable either to earlier censuses or to such surveys as the Hawaii Health Surveillance Program. The latter survey reported that 27.3 percent of the population in households in 1980 was of mixed race (17.9 percent Part Hawaiian and 9.4 percent non-Hawaiian).

2/ For detailed composition, see Census of Population: 1980, Asian and Pacific Islander Population in the United States: 1980 (2 parts), PC80-2-1E (1988), table 2.

3/ For a cross-tabulation of Spanish origin by race, see Data Book 1985, table 27.

Source: U.S. Bureau of the Census, Census of Population: 1980, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (1983), tables 58 and 59.

Table 25.-- ANCESTRY: 1980

Ancestry group 1/	Persons who reported --		
	At least one specific ancestry group	A single ancestry group	A multiple ancestry group
Total 2/	901,210	632,972	268,238
Dutch	10,554	1,886	8,668
English	96,223	33,262	62,961
French	26,429	3,926	22,503
German	82,982	22,181	60,801
Irish	68,041	12,845	55,196
Italian	13,994	5,331	8,663
Portuguese	57,541	26,447	31,094
Scottish	24,300	3,387	20,913
Afro-American	15,612	13,200	2,412
Chinese	91,305	45,062	46,243
Filipino	139,621	105,973	33,648
Japanese	246,000	214,964	31,036
Korean	20,854	15,091	5,763
Puerto Rican	14,997	7,082	7,915
Spanish/Hispanic	17,208	4,001	13,207
Hawaiian 3/	136,341	61,226	75,115
American Indian	11,728	2,210	9,518

1/ Shown separately for all groups over 10,000.

2/ Numbers by ancestry group do not add to total because persons reporting a multiple ancestry are included in more than one group.

3/ The U.S. total for persons with Hawaiian ancestry was 202,054, including 84,104 reporting a single ancestry group and 117,950 reporting a multiple ancestry group. Out of 65,708 Mainland residents reporting Hawaiian ancestry, 32,145 were living in California.

Source: U.S. Bureau of the Census, 1980 Census of Population, Ancestry of the Population by State: 1980, Supplementary Report PC80-S1-10 (April 1983).

Table 26.-- NATIVITY, PLACE OF BIRTH, AND CITIZENSHIP: 1980 AND 1970

Nativity, place of birth, and citizenship	State totals		Islands: 1980	
	1980	1970	Oahu	Other islands
NATIVITY AND PLACE OF BIRTH				
Total persons	964,691	768,559	762,565	202,126
Native 1/	827,675	692,964	649,354	178,321
Born in Hawaii	557,990	455,060	420,120	137,870
Born in different State	248,752	178,531	209,901	38,851
Born abroad, at sea, etc. 2/	20,933	17,286	19,333	1,600
Foreign born	137,016	75,595	113,211	23,805
Europe and U.S.S.R.	9,100	5,595	7,457	1,643
China	6,112	4,663	5,875	237
Japan	22,265	19,685	18,718	3,547
Korea	9,060	2,063	8,774	286
Philippines	58,510	33,175	43,880	14,630
Vietnam	3,606	(3/)	3,531	75
All other countries	22,267	8,208	19,719	2,548
Country not reported	6,096	2,206	5,257	839
CITIZENSHIP 4/				
Foreign born	137,016	73,578	113,211	23,805
Naturalized citizen	62,287	30,566	51,314	10,973
Not a citizen	74,729	43,012	61,897	12,832

1/ 1970 figure includes persons not reporting place of birth, not shown separately.

2/ Includes persons born in Puerto Rico, American Samoa, or other outlying areas of the United States, and persons born at sea or in a foreign country having at least one American parent.

3/ Included with "All other countries."

4/ 1970 data based on a subsample; foreign born total thus differs somewhat from corresponding figure shown elsewhere in this table.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), tables 61, 63, and 118; 1970 Census of Population, Detailed Characteristics, Hawaii, PC(1)-D13 (July 1972), tables 141 and 144.

Table 27.-- PLACE OF BIRTH, CITIZENSHIP, AND LENGTH OF RESIDENCE IN HAWAII, BY MILITARY STATUS: 1987

[Excludes persons in institutions or military barracks, in Kalawao, or on Niihau. Based on a sample survey of 17,733 persons]

Subject	All groups	Armed forces	Military dependents	Other civilians
Total	1,043,898	37,626	65,098	941,174
PLACE OF BIRTH				
Native born	886,377	34,950	52,739	798,688
Hawaii	647,642	1,623	10,308	635,711
Mainland U.S.	232,228	33,096	40,828	158,304
American Samoa	3,058	73	76	2,909
U.S. territory, possession	3,449	158	1,527	1,764
Foreign born	151,174	2,603	11,634	136,937
China	12,969	-	333	12,636
Indo-China	9,533	-	621	8,912
Japan	23,536	279	1,730	21,527
Korea	9,770	54	1,433	8,283
Philippines	70,052	1,076	4,740	64,236
Other foreign	25,314	1,194	2,777	21,343
Not reported	6,347	73	725	5,549
CITIZENSHIP				
U.S. citizen	978,182	37,143	60,009	881,030
Native born	900,291	35,603	56,550	808,138
Naturalized	77,891	1,540	3,459	72,892
U.S. national	1,948	-	-	1,948
Alien	53,019	168	4,385	48,466
Not reported	10,882	315	740	9,827
LENGTH OF RESIDENCE IN HAWAII				
Less than 1 year	55,434	6,073	15,744	33,617
1 to 4 years	173,736	26,101	40,150	107,485
5 to 9 years	119,479	2,817	5,434	111,228
10 to 19 years	219,127	1,077	1,964	216,086
20 years or more	464,694	1,412	1,621	461,661
Not reported	11,561	146	221	11,194
Median years	16.6	2.1	2.1	19.8

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 28.-- LANGUAGE SPOKEN AT HOME BY PERSONS FIVE YEARS OLD AND OVER, BY ABILITY TO SPEAK ENGLISH: 1980

[Unless otherwise specified, data are based on a 15.7-percent sample]

Language	Total	Speak English --			
		Very well	Well	Not well	Not at all
Persons 5 and over	887,707	...	...	...	...
Speak only English at home	658,752	...	...	...	...
Speak a language other than English at home	228,955	110,338	74,946	37,797	5,874
Chinese 1/	20,066	9,057	6,096	4,014	899
Japanese 1/	80,230	39,640	24,705	13,475	2,410
Korean	9,231	2,707	3,317	2,749	458
Philippine language 1/	66,655	26,550	26,311	12,533	1,261
Spanish	11,933	8,752	2,460	697	24
All others	40,840	23,632	12,057	4,329	822
Speak a Polynesian language at home 2/	21,740	12,220	7,200	2,220	100
Hawaiian 2/, 3/	9,060	6,580	2,200	240	40
Samoan 2/	11,020	5,000	4,320	1,640	60
Tongan 2/	1,180	360	560	260	-
Other Polynesian 2/	480	280	120	80	-

1/ For statistics on individual Chinese, Japanese, and Philippine languages or dialects, see Data Book 1984, tables 38 and 39.

2/ Based on the 5-percent Public Use Microdata Sample.

3/ For demographic characteristics of persons speaking Hawaiian at home, see Data Book 1986, table 32.

Source: U.S. Bureau of the Census, 1980 Census of Population, Detailed Population Characteristics, Hawaii, PC80-1-D13 (October 1983), table 197, and Census of Population and Housing, 1980, Public Use Microdata Sample A--5 Percent (Hawaii), special tabulation by Hawaii State Data Center.

Table 29.-- HOUSEHOLD TYPE AND RELATIONSHIP: 1980

Household type and relationship	State total	Oahu	Other islands
Total persons	964,691	762,565	202,126
In households	925,092	725,865	199,227
Householder	294,052	230,214	63,838
Family householder: Male	190,426	148,549	41,877
Female	35,609	28,367	7,242
Nonfamily householder: Male	37,333	28,632	8,701
Female	30,684	24,666	6,018
Spouse	185,698	145,333	40,365
Child	330,281	260,999	69,282
Brother or sister	11,115	8,989	2,126
Parent	11,493	9,231	2,262
Other relative	50,361	38,890	11,471
Nonrelatives	42,092	32,209	9,883
In group quarters	39,599	36,700	2,899
Inmate of institution	5,785	4,565	1,220
Other	33,814	32,135	1,679
Persons 75 years and over living alone	5,075	3,560	1,515
Persons per household	3.15	3.15	3.12
Persons per family	3.61	3.62	3.56
Persons under 18 years	275,583	214,563	61,020
Householder or spouse	387	295	92
Own child	243,671	190,289	53,382
In married-couple family	204,455	159,866	44,589
With female householder, no husband present	32,392	25,584	6,858
With male householder, no wife present	6,824	4,889	1,935
Other relatives	25,918	19,832	6,086
Nonrelatives	3,985	2,941	1,044
Inmate of institution	387	349	38
Other, in group quarters	1,235	857	378
Persons 65 years and over	76,150	55,368	20,782
Family householder: Male	25,453	17,831	7,622
Female	3,959	3,024	935
Spouse	13,763	9,755	4,008
Other relatives	14,015	10,945	3,070
Nonrelatives	1,887	1,396	491
Nonfamily householder: Male	4,670	3,046	1,624
Female	8,705	6,548	2,157
Inmate of institution	2,961	2,116	845
Other, in group quarters	737	707	30

Source: U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 21.

Table 30.-- FAMILY TYPE BY PRESENCE OF OWN CHILDREN: 1980

Presence of own children	All families	Married couple families	Female householder no husband present
Total	226,035	185,698	29,422
With own children under 18 years	123,087	101,644	17,410
With own children under 6 years only	32,604	27,528	4,131
With own children under 6 and 6 to 17 years	25,070	21,883	2,779
Number of own children under 18 years	243,671	204,455	32,392
Number of own children under 6 years	79,619	68,656	9,230

Source: U.S. Bureau of the Census, *Census of Population: 1980, General Population Characteristics, Hawaii*, PC80-1-B13 (1982), table 21.

Table 31.-- HOUSEHOLDS AND FAMILIES: ANNUAL AVERAGES, 1981-83, 1984-86 AND 1987-89

[Based on pooled samples of 1,831 households (5,676 persons) for 1981-1983, 1,630 households (4,987 persons) for 1984-1986, 1,540 households (4,529 persons) for 1987-1989]

Subject	1981-1983	1984-1986	1987-1989
Number of households	315,767	329,005	361,973
Persons in households	968,027	1,001,329	1,047,048
Per household	3.07	3.04	2.89
Number of families	238,102	251,099	273,077
Persons in families	811,302	837,135	868,369
Per family	3.41	3.33	3.18

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1981 to 1989; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 32.-- HOUSEHOLDS AND HOUSEHOLD SIZE: 1940 TO 1989

[As of April 1, 1940-1980, and July 1 thereafter. For annual estimates, 1971-1979, see Data Book 1985, table 585]

Year	Households	Average size	Year	Households	Average size
1940 ...	86,855	4.46	1983 ...	316,000	(NA)
1950 ...	111,858	4.14	1984 ...	323,000	(NA)
1960 ...	153,064	3.87	1985 ...	330,000	(NA)
1970 ...	203,088	3.59	1986 ...	336,000	(NA)
1980 ...	294,052	3.15	1987 ...	344,000	(NA)
1981 ...	304,000	(NA)	1988 ...	353,000	2.99
1982 ...	310,000	(NA)	1989 ...	361,000	2.97

NA Not available.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 33. U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 14; "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-88," Current Population Reports, Population Estimates and Projections, Series P-25, No. 1044 (August 1989), pp. 64-65; "State Population and Household Estimates: July 1, 1989," Current Population Reports, Population Estimates and Projections, Series P-25, No. 1058 (March 1990), p. 62.

Table 33.-- MARITAL STATUS, BY SEX: ANNUAL AVERAGE, 1987-89

[Excludes persons in institutions or military group quarters. Based on a pooled sample of 4,529 persons of all ages]

Marital status	Male	Female
Persons 15 years old and over	414,092	411,505
Single, never married	144,019	92,182
Married, except separated	234,782	237,534
Separated	5,351	5,525
Widowed	7,415	44,748
Divorced	22,525	31,516

Source: U. S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1987 to 1989, machine-readable data file, special tabulation by Hawaii State Data Center.

Table 34.-- CHURCH MEMBERSHIP, FOR SELECTED DENOMINATIONS: 1982 AND 1987

Denomination	1982 1/	1987
Buddhist:		
Honpa Hongwanji	21,500	10,308
Christian:		
Assembly of God	7,000	12,681
Church of Jesus Christ of Latter-Day Saints	31,027	45,000
Episcopal	10,541	10,876
Roman Catholic	209,000	220,000
Southern Baptist	11,340	13,926
United Church of Christ	17,485	18,540
United Methodist	6,242	6,618

1/ For 1982 data for other denominations, see Data Book 1988, table 37.

Source: Geography Department, University of Hawaii, Atlas of Hawaii, 2nd ed. (1983), p. 133; Honolulu Advertiser, August 20, 1988, p. A-8.

Table 35.-- COMPONENTS OF CHANGE IN THE RESIDENT POPULATION, BY MILITARY STATUS: 1970 TO 1980 AND 1980 TO 1989

Period and component	All groups	Armed forces	Civilian population			
			Military depend-ents	Not military dependents		
				Number	Annual average	Percent distrib.
1970 TO 1980 1/						
Net change	+194,778	+1,911	+2,165	+190,702	+19,070	100.0
Natural increase	118,654	-447	36,233	82,868	8,287	43.5
Live births	161,831	-	37,234	124,597	12,460	...
Deaths	43,177	447	1,001	41,729	4,173	...
Net mil. separations 2/ .	-	-1,815	-	+1,815	+181	1.0
Net migration 3/	+76,124	+4,173	-34,068	+106,019	+10,602	55.6
1980 TO 1989 4/						
Net change	+147,400	-700	+3,700	+151,800	+16,400	100.0
Natural increase	120,300	-200	35,200	85,400	+9,200	56.2
Live births	171,800	-	36,000	135,900	14,700	...
Deaths	51,500	200	800	50,500	5,500	...
Net mil. separations 2/ .	-	+700	-	-700	-100	-0.4
Net migration	+27,100	-1,200	-38,900	+67,100	+7,300	44.2

1/ April 1, 1970 to March 31, 1980.
2/ Separations less inductions for armed forces.
3/ Includes error of closure.
4/ April 1, 1980 to June 30, 1989.
Source: Federal-State Cooperative Program for Local Population Estimates.

Table 36-- INTENDED RESIDENTS ARRIVING IN HAWAII, BY MILITARY STATUS: 1984 TO 1989

Year	All intended residents	Westbound by military status				Eastbound and northbound 1/
		Total	Military service	Military dependent	All other	
1984	(NA)	27,050	10,410	12,150	4,490	(NA)
1985	(NA)	25,770	11,247	11,599	2,924	(NA)
1986	(NA)	21,650	8,913	7,991	4,746	(NA)
1987	(NA)	14,640	6,215	5,525	2,900	(NA)
1988	(NA)	7,850	3,097	1,914	2,839	(NA)
1989	22,530	16,010	6,700		9,310	6,520

NA Not available.

1/ Not available by military status.

Source: Hawaii Visitors Bureau, 1989 Westbound Visitors to Hawaii (1990), p. 34, as corrected, and special tabulation of 1987 and 1988 data for DBED; Hawaii State Department of Business and Economic Development, Hawaii's Migrants, 1986 (Statistical Report 203, October 5, 1987), tables 7 and 17.

Table 37.-- INTENDED RESIDENTS ARRIVING IN HAWAII, BY FORMER RESIDENCE AND OCCUPATION: 1989

Direction of travel	Former residence				Occupation 1/	
	Total	Mainland U.S.	Canada	Other foreign	Student	Retired
Total	22,530	17,730	50	4,750	(NA)	(NA)
Westbound	16,010	15,900	50	60	1,110	490
Eastbound/northbound	6,520	1,830	-	4,690	(NA)	(NA)

NA Not available.

1/ Total arrivals, by occupation of party head.

Source: Hawaii Visitors Bureau, 1989 Westbound Visitors to Hawaii (1990), pp. 34-35, as corrected.

Table 38.-- IMMIGRANTS ADMITTED, BY COUNTRIES OF BIRTH: 1985 TO 1989

[Years ended September 30. Data refer to immigrants admitted to the United States, reporting Hawaii as their State of intended permanent residence, and include non-immigrant arrivals who changed their status after entry]

Country of birth	1985	1986	1987	1988	1989 1/
All countries	7,868	7,814	6,796	6,637	7,002
Canada	130	115	131	139	146
China and Taiwan	799	724	678	579	709
Japan	286	240	265	285	271
Korea	988	894	912	913	918
Philippines	4,231	4,508	3,784	3,410	3,819
Vietnam	280	296	144	330	145
Other countries	1,154	1,037	882	981	994

1/ Includes immigrants admitted under Section 245A of the Immigration Reform and Control Act of 1986. These formerly illegal aliens must have resided in the United States since 1982 to qualify, therefore, they are not new residents.

Source: U.S. Immigration and Naturalization Service, records.

Table 39.-- PERSONS NATURALIZED, BY COUNTRIES OF FORMER ALLEGIANCE: 1984 TO 1989

[Years ended September 30]

Year	All countries	China and Taiwan	Korea	Philippines	United Kingdom	Other countries
1984	6,448	289	787	4,200	192	980
1985	4,291	238	561	2,434	93	965
1986	4,760	286	594	2,669	105	1,106
1987	4,070	253	485	2,306	97	929
1988	3,763	272	431	2,097	98	865
1989	6,426	870	670	3,292	158	1,436

Source: U.S. Immigration and Naturalization Service, records.

Table 40.-- RESIDENCE ONE YEAR EARLIER, 1981-1984 AND 1986-1989, AND FIVE YEARS EARLIER, 1985

[Excludes persons in military group quarters. Based on a sample of 2,428 households (7,512 persons of all ages) for 1981-1984, 532 households (1,616 persons) for 1985, 2,041 households (6,064 persons) for 1986-1989]

Subject	Total population 1/	Non-movers	Different house		
			Same State	Different State	Different country
Residence 1 year earlier:					
Annual average, 1981-1984	960,402	782,172	129,081	39,473	9,676
Annual average, 1986-1989	1,034,158	847,399	121,468	52,961	12,331
Residence 5 years earlier, 1985	921,236	534,131	252,978	107,359	26,768

1/ Excludes persons under 1 year old in 1981-1984, 1986-1988, and under 5 years old in 1985.

Source: U.S. Bureau of the Census for U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1981 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 41.-- RESIDENCE ONE YEAR EARLIER, BY MILITARY STATUS: 1986 AND 1987

[Excludes persons under one year old and residents of military barracks, institutions, Kalawao, and Niihau. Based on a sample survey of 16,862 persons 1 year old and over in 1986 and 17,733 persons 1 year old and over in 1987]

Place of residence one year earlier	All groups	Armed forces	Military dependents	Other civilians
1986				
Population 1 and over	1,007,462	37,168	62,785	907,508
Same house	865,198	23,849	43,765	797,584
Different house, same island	87,607	6,245	6,750	74,612
Different island	4,504	239	65	4,200
Different state	31,194	5,265	10,372	15,556
U.S. territory or possession	802	-	52	750
Different country	6,689	629	1,188	4,872
Previous residence not reported	11,468	940	594	9,934
Migrants 1/	38,684	5,895	11,612	21,178
Percent of number reporting	3.9	16.3	18.7	2.4
1987				
Population 1 and over	1,028,244	37,626	61,437	929,181
Same house	846,706	23,608	40,092	783,006
Different house, same island	117,383	6,235	7,404	103,744
Different island	5,920	9	26	5,885
Different state	40,845	5,764	11,564	23,517
U.S. territory or possession	1,545	123	-	1,422
Different country	7,802	1,238	1,404	5,160
Previous residence not reported	8,043	649	947	6,447
Migrants 1/	50,192	7,125	12,968	30,099
Percent of number reporting	4.9	18.9	21.1	3.2

1/ From different state, territory, or country.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 42.-- LIKELIHOOD OF OUT-MIGRATION, BY MILITARY STATUS: 1986 AND 1987

[Based on response to question, "How likely is it that this person will be living some place other than Hawaii one year from today?" asked of samples of 17,107 persons in 1986 and 17,733 persons in 1987. Excludes persons living in institutions or barracks, in Kalawao, or on Niihau]

Likelihood of out-migration	All groups	Armed forces	Military dependents	Other civilians
1986				
Total	1,022,746	37,169	66,211	919,366
Almost certain to be living in Hawaii	946,243	24,670	44,421	877,152
Some possibility of living elsewhere	20,414	1,699	3,441	15,274
A good chance of living elsewhere ...	5,037	784	1,026	3,227
Almost certain to be living elsewhere	37,095	9,131	16,650	11,314
Not reported	13,956	885	672	12,399
1987				
Total	1,044,031	37,626	65,134	941,271
Almost certain to be living in Hawaii	965,588	24,640	47,671	893,277
Some possibility of living elsewhere	21,040	2,040	2,994	16,006
A good chance of living elsewhere ...	13,203	1,149	2,328	9,726
Almost certain to be living elsewhere	34,452	9,301	11,275	13,876
Not reported	9,748	496	866	8,386

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Section 2

VITAL STATISTICS AND HEALTH

This section presents data on births, deaths, marriages, divorces, diseases, accidents, alcohol and drug use, height and weight, hospitals, and health personnel.

Vital indexes generally reflect the high health standards of Hawaii. Expectation of life at birth in 1984-86 was 75.37 years for males and 80.92 years for females. There were 6,380 resident deaths in 1989, or 5.7 per 1,000 resident population. Deaths under one year of age per 1,000 live births numbered 7.4 in 1989. Diseases of the heart have accounted for almost a third of all deaths in recent years; cancer, for one-fourth. Resident live births in 1989 numbered 19,335, or 17.4 per 1,000 resident population. The total fertility rate for civilians fell from 3,360 per 1,000 women in 1960 to 2,013 in 1988. Fully 98.3 percent of all babies were born in hospitals in 1989, and one-fifth were born to military couples. Almost one out of four births was to an unmarried woman. There were 7,409 fetal deaths in 1988, including 5,998 elective abortions. Marriages numbered 19,974 in 1989, with about 45 percent accounted for by nonresidents. Divorces reached a 1989 total of 5,613. The State had 22 acute care hospitals (with 2,855 beds), 38 long-term care facilities (with 3,191 beds), and nine specialty care facilities (with 808 beds) in 1989. There were 2,425 physicians and surgeons, 882 dentists, 8,218 professional nurses, and 516 pharmacists licensed and living in Hawaii as of March 1989. Acute conditions per 100 persons numbered 228 in 1987, with respiratory conditions the most common complaint (at 165 cases per 100 persons). Among chronic conditions reported in the 1987 survey data, the most frequently mentioned were hypertension without heart involvement (8.7 per 100 persons), gout (6.2), and impairments of the back or spine (6.1). The most common communicable diseases reported to authorities in 1988 were scarlet fever, with 5,671 cases, and gonorrhea, with 875, but the most fatal was AIDS (43 deaths). State mental health facilities served 8,389 patients in 1988, but the number of in-patients at the end of the year was only 260. Among persons 18 years old and over in 1984, 53 percent used alcohol, eight percent were heavy drinkers, 43 percent used drugs, and three percent were heavy drug users. The average adult male was 67.5 inches tall and weighed 159.5 lbs.; the average adult female was 62.6 inches and 127.9 lbs.

The major source for data on vital statistics and health is the annual statistical report of the Hawaii State Department of Health. Long-term trends are traced in Historical Statistics of Hawaii, Section 2. Sections 2 and 3 of the Statistical Abstract of the United States: 1990 contain similar data for the nation as a whole.

Table 43.-- BIRTHS AND DEATHS: 1970 TO 1989

Calendar year	Resident births 1/	Resident deaths 1/	Rates per 1,000 resident population 2/		Rates per 1,000 live births 3/		
			Births	Deaths	Illegitimate births	Fetal deaths 4/	Infant deaths 5/
1970 ...	16,361	3,971	21.2	5.1	95.8	20.6	19.1
1971 ...	15,780	4,130	19.7	5.2	88.4	23.5	16.0
1972 ...	15,364	4,245	18.5	5.1	93.0	22.8	17.5
1973 ...	15,328	4,356	18.0	5.1	104.0	16.4	13.7
1974 ...	15,472	4,286	17.8	4.9	108.8	16.3	16.0
1975 ...	15,689	4,272	17.7	4.8	123.2	18.9	13.7
1976 ...	16,292	4,349	18.0	4.8	125.0	20.8	11.2
1977 ...	16,874	4,349	18.4	4.7	143.3	21.6	12.3
1978 ...	16,717	4,508	17.9	4.8	160.1	13.5	12.0
1979 ...	17,513	4,791	18.4	5.0	163.5	13.1	10.9
1980 ...	18,129	4,903	18.7	5.1	175.6	15.3	10.8
1981 ...	18,174	4,927	18.5	5.0	181.8	13.1	10.5
1982 ...	18,675	5,123	18.7	5.1	186.3	12.7	8.9
1983 ...	19,090	5,409	18.7	5.3	197.8	11.4	10.0
1984 ...	18,667	5,571	18.0	5.4	191.8	9.5	10.9
1985 ...	18,267	5,751	17.4	5.5	201.3	9.7	9.1
1986 ...	18,253	5,788	17.2	5.4	203.9	11.0	9.2
1987 ...	18,555	6,149	17.1	5.7	213.7	9.2	8.8
1988 ...	18,937	5,970	17.3	5.4	223.3	[illegible]0.8	7.4
1989 ...	19,335	6/ 6,380	17.4	5.7	239.0	9.9	8.4

1/ Events occurring in Hawaii. Data include births to military couples and deaths of armed forces and their dependents, but exclude nonresident births and deaths, as well as resident births and deaths occurring out of State.

2/ Based on estimates in present report, table 2.

3/ Place of occurrence basis.

4/ 20 weeks gestation and over. Includes elective abortions.

5/ Under 1 year of age.

6/ Excludes 139 deaths with unknown residence.

Source: Hawaii State Department of Health, Statistical Report (annual), and Office of Health Status Monitoring, records.

Table 44.-- BIRTHS AND DEATHS, BY MILITARY STATUS: 1988 AND 1989

[Place of occurrence basis]

Subject	All groups	Armed forces	Civilians 1/			Armed forces and dependents
			All civilians	Military dependents	Other civilians	
Live births:						
1988	19,054	-	19,054	3,821	15,233	3,821
1989	19,428	-	19,428	3,816	15,612	3,816
Deaths:						
1988	6,315	60	6,255	90	6,165	150
1989	6,730	48	6,682	78	6,604	126
Birth rates: 2/						
1988	15.7	0	16.4	54.7	14.0	30.2
1989	15.4	0	16.1	63.3	13.6	32.7
Death rates: 2/						
1988	5.2	1.1	5.4	1.3	5.7	1.2
1989	5.3	0.9	5.5	1.3	5.8	1.1

1/ Death rates for military dependents based on 1980 age and sex composition of military dependents and 1980 age-sex-specific death rates for all civilians. Deaths of civilians other than military dependents calculated as residual.

2/ Per 1,000 de facto population in each group, based on estimates in present report, tables 2 and 3.

Source: Hawaii State Department of Health, Office of Health Status Monitoring, records.

Table 45.-- LIVE BIRTHS, STANDARD FETAL DEATHS, AND ELECTIVE ABORTIONS: 1984 TO 1989

[Place of residence basis]

Calendar year	Total deliveries		Live births	Standard fetal deaths	Elective abortions
	Number	Rate 1/			
1984	25,573	24.7	18,667	1,629	5,277
1985	25,335	24.1	18,267	1,473	5,595
1986	25,312	23.8	18,253	1,412	5,647
1987	25,931	24.0	18,555	1,405	5,971
1988	26,346	24.0	18,937	1,411	5,998
1989 2/ ...	26,083	23.5	19,335	1,468	5,280

1/ Per 1,000 resident population, July 1. From present report, table 2.

2/ Excludes 21 fetal deaths and 18 elective abortions with unknown residence.

Source: Hawaii State Department of Health, Annual Report, Statistical Supplement, 1984-1988, and records.

Table 46.-- BIRTHS AND DEATHS, BY PLACE OF OCCURRENCE AND RESIDENCE: 1988 AND 1989

Event and year	Occurring in Hawaii				Hawaii residents	
	Total	Resident	Non-resident	Not reported	Total	Out of State 1/
Births:						
1988 ...	19,054	18,937	115	2	18,964	27
1989 ...	19,428	19,335	93	-	19,361	26
Deaths:						
1988 ...	6,315	5,970	340	5	6,052	82
1989 ...	6,730	6,380	211	139	6,551	171

1/ Data received from other States.

Source: Hawaii State Department of Health, Statistical Report, 1988, pp. 11, 24, 26, 47, and records.

Table 47.-- CHARACTERISTICS OF RESIDENT BIRTHS: 1987 TO 1989

[Excludes births to Hawaii residents occurring out of state]

Subject	1987	1988	1989
Number of resident births	18,555	18,937	19,335
City and County of Honolulu	14,160	14,430	14,736
Percent on Oahu	76.3	76.2	76.2
Hawaii County	1,915	1,980	2,007
Kauai County	865	873	861
Maui County (incl. Kalawao)	1,615	1,654	1,731
Percent attended by M.D. or O.D. in hospital 1/	98.3	98.6	98.3
Males per 100 females	107.6	103.6	104.8
Median weight of single births (grams)	3,308	3,315	3,317
Percent low birth weight (under 2,500 grams)	7.2	6.9	7.1
Percent single births under 40 weeks gestation	52.2	51.1	48.9
Percent plural	2.4	1.8	2.3
Percent with 1 or more congenital malformations	1.4	3.2	1.4
Percent illegitimate	21.4	22.4	23.9
Percent with prenatal visit in first three months	73.9	71.6	70.5
Percent first child born to mother 2/	29.7	30.3	29.9
Percent first child born alive to mother	41.3	42.1	42.1
Median age of mothers (years)	26.8	27.1	27
Median age of known fathers (years)	29.3	29.6	29

1/ Place of occurrence basis.
2/ Includes live births, fetal deaths, and abortions.
Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 48.-- FERTILITY RATES, BY MILITARY STATUS: 1980 AND 1988

[Military dependents are included in the military category. For 1960 and 1970 data, see Data Book 1987, table 60]

Military status	Crude birth rate 1/		General fertility rate 2/		Total fertility rate 3/	
	1980	1988	1980	1988	1980	1988
Total	18.8	17.4	78.7	73.5	2,084	2,158
Civilian	16.5	15.7	68.9	66.5	1,871	2,013
Military	35.0	30.2	147.5	126.9	3,496	2,930

1/ Annual number of live births per 1,000 resident population.
2/ Annual number of live births per 1,000 women 15-44 years of age.
3/ Average number of children to whom 1,000 women would give birth according to a set of fertility rates providing the women survive the childbearing years.

Source: 1980 calculated by Eleanor C. Nordyke, East-West Population Institute; 1988 estimated by Hawaii State Data Center.

Table 49.-- RESIDENT BIRTHS, MIXED AND UNMIXED, BY MILITARY STATUS OF FATHER: 1989

Military status of father	Total births	Unmixed	Mixed 1/	Not certain 2/
All groups	19,335	8,376	9,885	1,074
Military	3,790	2,853	936	1
Civilian	13,716	5,521	8,194	1
Status not reported	1,829	2	755	1,072

1/ Includes all Part Hawaiian births, including those in which both parents were Part Hawaiian.
2/ One or both parents of unspecified race (unless one was Part Hawaiian) or both parents classified as "other."

Source: Hawaii State Department of Health, records.

Table 50.-- MOST COMMON FIRST NAMES ON BIRTH CERTIFICATES, BY SEX: 1989

[A total of 6,541 first names, including variant spellings, was reported for the 19,428 babies born in Hawaii in 1989]

Rank	Boys' names		Girls' names	
	Name	Number	Name	Number
1	Joshua	217	Ashley	154
2	Michael	211	Jessica	137
3	Christopher	190	Nicole	136
4	Matthew	144	Brittany	112
5	Justin	136	Sarah	85
6	Ryan	126	Chelsea	82
7	Daniel	116	Stephanie	77
8	Andrew	108	Amanda	75
9	Jonathan	107	Jennifer	74
10	David	104	Michelle	73

Source: Hawaii State Department of Health, special tabulation.

Table 51.-- MOST COMMON SURNAMES ON BIRTH AND DEATH CERTIFICATES: 1989

Rank	Birth certificates		Death certificates	
	Surname	Births	Surname	Deaths
1	Lee	110	Lee	50
2	Wong	80	Wong	38
3	Smith	70	Chang	26
4	Johnson	61	Lau	26
5	Kim	60	Smith	25
6	Young	51	Yamamoto	24
7	Williams	50	Young	24
8	Wilson	48	Souza	23
9	Brown	44	Lum	22
10	Chang	42	Higa	21

Source: Hawaii State Department of Health, special tabulation.

Table 52.-- SELECTED LIFE TABLE VALUES, BY SEX: 1984-1986

[For earlier years and rankings relative to other States, see Data Book 1987, tables 69 and 70]

Age in years (period of life between two exact ages stated)	Of 100,000 born alive				Average remaining lifetime at beginning of year of age 1/	
	Number living at beginning of year of age		Number dying during year of age			
	Male	Female	Male	Female	Male	Female
0-1	100,000	100,000	1,020	833	75.37	80.92
5-6	98,814	99,023	17	22	71.27	76.72
15-16........	98,573	98,831	57	31	61.43	66.85
25-26	97,650	98,453	117	36	51.96	57.09
35-36	96,469	98,013	134	67	42.53	47.32
45-46	94,660	96,998	281	162	33.24	37.76
55-56	90,060	94,310	719	430	24.64	28.67
65-66	80,321	88,116	1,387	923	16.95	20.29
75-76	61,250	75,146	2,492	1,946	10.53	12.83
85-86	31,274	49,110	(2/)	(2/)	5.56	6.73

1/ For males and females combined, the average remaining lifetime at birth was 77.98 years. For the entire United States in 1985, the corresponding figure was 74.7 years (71.2 years for males and 78.2 years for females).

2/ Not calculated for this and higher ages.

Source: Robert W. Gardner, East-West Population Institute, Complete Life Tables by Age and Sex for Hawaii, 1984-86 (unpublished, September 11, 1987); Statistical Abstract of the United States: 1989, p. 71.

Table 53.-- CHARACTERISTICS OF RESIDENT DEATHS: 1986 TO 1989

[Excludes deaths of Hawaii residents occurring out of state]

Subject	1986	1987	1988	1989
Number of resident deaths	5,788	6,147	5,970	6,380
City and County of Honolulu	4,248	4,534	4,304	4,634
Hawaii County	719	784	793	845
Kauai County	313	305	339	323
Maui County (incl. Kalawao)	508	522	534	578
Males per 100 females	138.0	144.4	145.1	139.7
Median age (years)	73.2	72.2	72.9	73
Centenarian deaths: Male	10	14	14	13
Female	19	21	24	27
Oldest (years): Male	106	107	102	104
Female	106	103	107	106
Percent married	47.0	46.9	48.2	45.9
Deaths under 1 year	168	164	131	156
Per 1,000 live births	9.2	8.8	7.4	8.1
Fetal deaths 1/	7,178	7,264	7,409	6,748
Per 1,000 deliveries	281	392	281	259
Fetal deaths, 20 or more weeks gestation 2/	202	183	205	193
Per 1,000 live births	11.0	9.2	10.8	10.0
Standard fetal deaths 3/	1,478	1,405	1,411	1,468
Elective abortions	5,700	5,971	5,998	5,280
Per 1,000 live births	312.3	321.8	314.8	273.1

1/ Includes elective abortions.

2/ Place of occurrence basis. Includes elective abortions if 20 weeks or more.

3/ Excludes elective abortions.

Source: Hawaii State Department of Health, Statistical Report (annual), and Office of Health Status Monitoring.

Table 54.-- CAUSE OF DEATH, BY SEX: 1989

[Place of residence basis]

Cause of death	Both sexes	Males	Females
Total deaths	6,381	3,719	2,662
Tuberculosis	4	3	1
Syphilis	-	-	-
Other infective	144	103	41
Malignant neoplasm	1,570	874	696
Digestive organs	509	285	224
Respiratory system	391	257	134
Breast	95	-	95
Genital organs	158	83	75
Urinary organs	51	30	21
Leukemia	66	47	19
Other	300	172	128
Diabetes mellitus	149	72	77
Heart disease	1,977	1,165	812
Rheumatic	24	6	18
Hypertensive	63	40	23
Ischemic	1,083	652	431
Other heart	807	467	340
Hypertension	27	15	12
Cerebrovascular disease	473	242	231
Arteriosclerosis	18	9	9
Other circulatory	74	52	22
Aneurysm	-	-	-
Influenza/pneumonia	272	146	126
Chronic obstructive pulmonary diseases	73	43	30
Peptic ulcer	27	18	9
Cirrhosis of liver	76	52	24
Nephritis and nephrosis	57	34	23
Pregnancy, birth & puerperium	-	-	-
Congenital anomalies	40	24	16
Perinatal conditions	63	34	29
Ill-defined conditions	59	36	23
Other diseases	794	438	356
Accidents	284	213	71
Motor vehicles	137	99	38
Other	147	114	33
Suicide	119	88	31
Homicide & legal intervention	52	38	14
Other external causes	29	20	9

Source: Hawaii State Department of Health, Office of Health Status Monitoring, records.

Table 55.-- CATASTROPHIC MORTALITY: 1980 TO 1990

[Includes all accidents, natural disasters, and other events causing five or more deaths. Complete through September 28, 1990]

	Date	Place	Kind of disaster	Deaths
1980:	Jan. 8-10	Oahu, Maui, Hawaii	Storm	7
	May 18	Molokai	Helicopter crash	7
1981:	Dec. 5	Pearl Harbor	Airplane crash	11
1982:	July 24	Near Wahiawa, Oahu	3-car auto crash	5
1983:	June 16	Honopu, Kauai	Airplane crash	14
1985:	Jan. 15	540 mi. N. of Honolulu .	Helicopter crash	7
1987:	Dec. 23	At sea W. of Molokai ...	Airplane disappearance	8
1988:	June 9	Near Waimanalo, Oahu ...	2-car auto crash	5
	July 9	Near Kawaihae, Hawaii ..	2-car auto crash	6
1989:	Jan. 31	Texas	Crash of Hawaii-bound airplane	19
	Feb. 24	100 mi. S. of Honolulu .	Airplane door lost ...	9
	June 11	Waimanu, Hawaii	Airplane crash	11
	Oct. 28	Halawa, Molokai	Airplane crash	20

Source: Robert C. Schmitt, "Catastrophic Mortality in Hawaii: An Update," The Hawaiian Journal of History, Vol. 23 (1989), pp. 217-227; DBED file of newspaper accounts.

Table 56.-- DEATHS OCCURRING IN HAWAII, BY METHOD OF DISPOSITION: 1984 TO 1989

Method	1984	1985	1986	1987	1988	1989
All methods	5,942	6,116	6,171	6,490	6,315	6,730
Burial	2,517	2,610	2,512	2,690	2,543	2,740
Cremation	2,808	2,886	3,002	3,185	3 145	3,369
Removal	587	586	614	565	591	594
Entombment	26	27	41	39	29	19
Educational purpose	-	-	-	-	-	-
Other	-	-	-	-	-	-
Unknown	4	7	2	11	7	8

Source: Hawaii State Department of Health, Statistical Report for 1984-1988, and records.

Table 57.-- PERCENT OF PERSONS 18 YEARS AND OVER AFFECTED BY SPECIFIED HEALTH RISK FACTORS, BY SEX: 1988

[Based on a telephone survey of the noninstitutional population]

Health risk factor	Both sexes	Male	Female
Overweight	16.4	17.4	15.3
Sedentary life-style	53.3	48.2	58.4
Current regular cigarette smokers	23.8	26.4	21.2
Ever smoked cigarettes	45.2	52.4	38.1
Smoking quit ratio	47.3	49.6	44.3
Binge drinkers	19.6	29.3	10.0
Heavy drinkers	9.4	16.3	2.7
Drinking drivers	3.6	5.9	1.2
Seatbelt nonuse	6.5	9.2	3.9
Cholesterol ever measured	48.0	50.6	45.5
Cholesterol level ever told	28.7	32.0	25.5
Cholesterol level known	13.1	15.2	11.1

Source: U.S. Department of Health and Human Services, Centers for Disease Control, "Behavioral Risk Factor Surveillance, 1988," Mobidity and Mortality Weekly Report, Vol. 39, No. SS-2, June 1990.

Table 58.-- PERSONS ON THE STATE BLIND REGISTER, BY COUNTIES: 1988 AND 1989

Date	State total	City and Co. of Honolulu	County of Hawaii	County of Kauai	County of Maui
1988: June 30	2,121	1,730	156	73	162
1989: June 30	2,261	1,819	169	90	183

Source: Hawaii State Department of Social Services and Housing, Services for the Blind Branch, records.

Table 59.-- CHRONIC CONDITIONS: 1987

Selected chronic conditions	Prevalence of condition	Conditions per 1,000 persons
Malignant neoplasms	8,070	7.7
Benign and unspecified neoplasms	7,069	6.8
Thyroid Disease	11,372	10.9
Diabetes	25,565	24.5
Mental and nervous condition	12,479	12.0
Heart condition	25,366	24.3
Hypertension	90,946	87.1
Varicose veins	9,305	8.9
Hemorroids	16,307	15.6
Bronchitis/emphysema	19,161	18.4
Asthma	42,365	40.6
Hayfever	60,687	58.1
Chronic sinusitis	37,315	35.7
Stomach ulcer	10,403	10.0
Gallbladder	9,055	8.7
Kidney stone	6,385	6.1
Skin condition	51,577	49.4
Arthritis	37,297	35.7
Visual impairment	12,119	11.6
Hearing impairment	41,036	39.3
Impairment of back or spine	63,803	61.1
Gout	65,112	62.4

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 60.-- ACUTE CONDITIONS: 1987

Condition	Incidence of condition per year	Conditions per 100 persons per year
All acute conditions	2,377,629	227.7
Infective parasitic diseases	88,646	8.5
Respiratory condition	1,721,315	164.9
Digestive system condition	50,730	4.9
Injuries	203,328	19.5
All other acute conditions	313,610	30.0

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 61.-- LIMITATION OF ACTIVITY DUE TO CHRONIC OR ACUTE CONDITIONS: 1987

Type of limitation	Number
Persons with one or more chronic conditions	445,520
No limitation of activity	353,165
Limited, but not in major activity	28,718
Limited in amount or kind of activity	34,385
Unable to carry on major activity	14,284
Not reported	14,968
Restricted days in past 12 months 1/	12,615,218
Per person 2/	11.6

1/ A restricted activity day is one in which a person had to cut down on his usual activity for all or most of the day.

2/ Base includes persons without chronic or acute conditions or restricted activities.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Survey Program, special tabulations.

Table 62.-- OCEAN SPORTS-RELATED INJURIES, FOR OAHU AND HAWAII COUNTY: APRIL 1988 TO JANUARY 1989

[Data for 276 injuries reported by 13 cooperating hospitals or acute-care clinics and the Hyperbaric Treatment Center]

Characteristic	Percent	Characteristic	Percent
Total	100	Primary diagnosis:	
		Laceration, tear	29
Activity:		Sting	24
Board surfing	28	Decompression sickness	7
Boogie boarding	7	Fracture	6
Body surfing	7	Abrasion, contusion	6
Swimming	31	Other	27
SCUBA diving	10		
Other	17	Residence:	
		Same island (civilian)	66
Requiring hospital admission	12	Other island or military	9
Male	77	Mainland or abroad	25
10 to 39 years old	79		

Source: G. Harley Hartung, Deborah A. Goebert, Raymond M. Taniguchi, and Gary A. Okamoto, "Epidemiology of ocean sports-related injuries in Hawaii: 'Akahele O Ke Kai,'" Hawaii Medical Journal, February 1990, pp. 52-56.

Table 63.-- SPECIFIED COMMUNICABLE DISEASES: 1987 TO 1989

Disease	Cases			Deaths		
	1987	1988	1989	1987	1988	1989
All reportable diseases ..	8,177	9,683	11,301	110	95	99
AIDS 1/	104	140	127	80	76	72
Chickenpox	1,484	840	2,211	-	-	-
Gonorrhea	1,159	875	731	-	-	-
Hansen's Disease 2/	25	20	17	-	-	1
Hepatitis, all types	110	127	250	13	4	5
Influenza	332	660	1,638	5	-	1
Leptospirosis 3/	24	67	69	-	-	1
Malaria 4/	3	10	8	1	-	-
Measles (Rubeola)	5	17	29	-	-	-
Meningitis, all types	137	170	199	-	-	9
Mumps	12	14	20	-	-	-
Rubella	32	33	13	-	-	-
Salmonellosis	475	508	371	-	-	-
Scarlet fever, other strep. ...	3,620	5,671	5,085	-	-	3
Syphilis	64	122	18	-	-	-
Tuberculosis	195	171	193	11	15	4
All others	396	228	5/ 322	-	-	3

1/ By date of diagnosis, with deaths allocated back to year when first reported. Data prior to 1989 are revised. The revised 1986 figures (see Data Book 1989, table 65) were 79 cases and 63 deaths.

2/ Excludes reinstated cases.

3/ Includes previously unreported cases.

4/ Acquired outside the State.

5/ Includes 31 incidents of gastroenteritis involving 2 or more persons.

Source: Hawaii State Department of Health, Statistical Report, 1988; Office of Health Status Monitoring and AIDS Surveillance Program, records.

Table 64.-- ALCOHOL AND DRUG USE BY PERSONS 18 YEARS AND OVER, BY SEX: 1984

[Percent distributions. Based on a sample survey of 2,505 persons on the four largest islands]

Use	Alcohol 1/			Drugs 2/		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0
None 3/	47.3	32.3	56.4	57.0	55.7	57.8
Light	24.4	21.8	26.4	6.5	8.1	5.2
Moderate	12.9	17.5	9.4	30.8	29.9	31.7
Moderately heavy	7.3	11.5	4.1	2.6	2.7	2.5
Heavy	8.1	13.9	3.7	3.1	3.5	2.8

1/ Based on total ethanol consumption.

2/ Based on frequency of use, weighted by degree of danger to users, for marijuana/hashish, tranquilizers, barbituates, inhalants, LSD, PCP, cocaine, amphetamines, heroin, and morphine/codeine/percodan/demoral.

3/ For alcohol use, includes both non-drinkers and infrequent drinkers.

Source: Jonathan S. Raymond, Sharon Murakami, and Frank Ahern, Toward an Epidemiology of Mental Health and Alcohol and Drug Use in Hawaii (September 1985), tables 7 and 11.

Table 65-- ESTIMATED HEALTH AND ECONOMIC COSTS OF SMOKING: 1985

Subject	Amount
Adult deaths attributable to smoking	753
Years of potential life lost	2,182
Annual economic cost of smoking (million dollars)	170.7
Hospitalization and other direct health care costs	88.1
Lost wages and decreased productivity	82.6
Perinatal deaths due to maternal smoking	12

Source: Hawaii State Department of Health, "The Health and Economic Impact of Smoking in Hawaii," R & S Report, No. 59 (November 1988).

Table 66.-- NUMBER AND BED CAPACITY OF HOSPITALS AND CARE HOMES, BY TYPE OF FACILITY: 1985 TO 1990

[Includes Tripler Army Medical Center]

	Hospitals				Care homes	
Category and year	Total 1/	Acute care	Long-term care	Specialty care	Family 2/	Residential 3/
Number of facilities:						
1985	47	23	32	10	299	16
1986	48	23	33	9	633	17
1987	51	23	36	9	633	17
1988	51	22	36	9	531	16
1989	52	22	38	8	515	16
1990	(NA)	(NA)	(NA)	(NA)	501	15
Number of beds:						
1985	6,504	2,894	2,650	960	1,258	559
1986	6,595	2,870	2,769	956	2,547	540
1987	6,820	2,887	2,977	956	2,547	540
1988	6,671	2,855	2,995	821	2,235	490
1989	6,854	2,855	3,191	808	2,184	481
1990	(NA)	(NA)	(NA)	(NA)	2,162	449

NA Not available.

1/ Institutions providing more than one kind of care are only counted once.

2/ Four or fewer beds through 1986, thereafter five beds or less.

3/ Five or more beds through 1986, six or more thereafter.

Source: Hawaii State Department of Health, Statistical Report (annual); State Health Planning and Development Agency, records; Hospital and Medical Facilities Branch, records.

Table 67.-- OCCUPANCY CHARACTERISTICS OF ACUTE AND LONG-TERM CARE CIVILIAN HOSPITALS: 1980 TO 1989

[Excludes Tripler Army Medical Center]

Type of facility and year	Beds 1/	Admissions	Average daily census	Average length of stay (days)	Average daily percent occupancy
Acute care:					
1980	2,359	117,404	2,047	6.4	70.9
1981	2,366	99,247	1,675	6.2	71.0
1982	2,366	102,374	1,728	6.2	73.0
1983	2,387	102,331	1,654	5.9	69.3
1984	2,385	96,530	1,558	5.9	65.3
1985	2,361	84,473	1,566	6.8	66.3
1986 2/	2,378	91,704	1,586	6.3	66.7
1987	2,346	93,256	1,661	6.5	70.8
1988 2/	2,835	117,548	2,074	6.4	73.3
1989	2,351	91,686	1,722	6.7	73.3
Long-term care:					
1980	2,670	2,653	2,391	328.9	90.0
1981	2,668	2,478	2,487	366.4	93.2
1982	2,640	2,498	2,523	368.7	95.6
1983	2,648	2,574	2,519	357.3	95.2
1984	2,650	2,606	2,552	357	96.3
1985	2,769	2,575	2,590	367	93.5
1986 2/	2,977	2,901	2,602	327	87.4
1987	2,995	2,553	2,779	397	92.8
1988 2/	3,187	2,746	2,907	376	91.7
1989	3,212	2,653	2,993	409	93.5

NA Not available.

1/ Civilian bed count of succeeding year.

2/ Excludes statistics for Lanai.

Source: Hawaii State Department of Health, Statistical Report (annual); State Health Planning and Development Agency, records.

Table 68.-- NUMBER AND BED CAPACITY OF HOSPITALS AND CARE HOMES, BY TYPE OF FACILITY, BY ISLANDS: 1989-1990

[Except for Tripler Army Medical Center, data are for facilities recognized by the Hawaii State Health Planning and Development Agency]

Category and island	Hospitals, Oct. 1989				Care homes, Oct. 1990	
	Total 1/	Acute care 2/	Long-term care	Specialty care	Type I 3/	Type II 4/
NUMBER OF FACILITIES						
State total ..	54	23	40	9	501	15
Oahu	35	11	24	7	403	10
Hawaii	7	4	7	-	49	1
Kauai	5	3	5	-	24	3
Maui	4	3	2	1	16	-
Molokai	2	1	1	1	9	1
Lanai	1	1	1	-	-	-
NUMBER OF BEDS						
State total ..	7,033	2,991	3,314	728	2,162	449
Oahu	5,405	2,460	2,239	706	1,774	370
Hawaii	734	252	482	-	194	13
Kauai	338	114	224	-	86	52
Maui	498	151	339	8	70	-
Molokai	44	8	22	14	38	14
Lanai	14	6	8	-	-	-

1/ Institutions providing more than one kind of care are counted only once.

2/ Includes Tripler Army Medical Center which had a bed capacity of 509 (plus 52 nursery beds).

3/ Five beds or less.

4/ More than five beds.

Source: Hawaii State Department of Health, Office of Health Status Monitoring, records.

Table 69.-- OCCUPANCY CHARACTERISTICS OF ACUTE AND LONG-TERM CARE CIVILIAN HOSPITALS, BY ISLANDS: 1989

[Excludes Tripler Army Medical Center]

Type of facility and island	Admissions	Average daily census	Average length of stay (days)	Average daily percent occupancy
ACUTE CARE				
State total	91,686	1,723	6.7	73.4
Oahu	69,589	1,374	7.2	74.9
Hawaii	10,472	159	5.5	65.4
Kauai	4,923	69	5.1	63.9
Maui	6,459	119	5.0	78.8
Molokai	139	1	2.2	12.5
Lanai	104	1	3.5	16.7
LONG-TERM CARE				
State total	2,653	2,993	409.4	93.2
Oahu	1,630	2,043	458	95.0
Hawaii	469	434	324	92.7
Kauai	266	210	289	93.8
Maui	181	282	568	83.2
Molokai	89	17	70	77.3
Lanai	18	7	136	87.5

NA Not available.

Source: Data by islands from Hawaii State Department of Health, State Health Planning and Development Agency, Utilization of Inpatient Facilities by County, 1989.

Table 70.-- COMMUNITY HOSPITAL AVERAGE COSTS AND ROOM CHARGES: 1982 TO 1988

Year	Average length of stay (days)	Average cost to hospital		Hospital semiprivate room charges 1/ (dollars)
		Per in-patient day (dollars)	Per admission (dollars)	
1982	8.3	307.30	2,551	176.24
1983	8.2	357.87	2,964	215.84
1984	8.3	383.05	3,186	224.31
1985	8.3	420.11	3,522	230.82
1986	7.5	489.93	3,707	252.89
1987	7.9	512.48	4,106	241.72
1988	(NA)	(NA)	(NA)	257.25

NA Not available.

1/ January data, except 1983, which refers to July.

Source: Health Insurance Association of America, Source Book of Health Insurance Data (biennial) and Update (biennial).

Table 71.-- PATIENTS SERVED BY STATE MENTAL HEALTH FACILITIES: 1985 TO 1989

Year	Patients active, end of period			Admissions		Terminations	Patients served (undup.)
	Total	In-patients	Out-patients	Total	Unduplicated		
1985	6,328	251	6,077	3,933	3,268	4,221	8,891
1986	5,852	252	5,600	3,826	3,292	3,725	8,342
1987	5,754	248	5,506	3,678	3,122	3,452	8,220
1988	5,234	260	4,974	3,694	3,147	4,143	8,389
1989	5,448	251	5,197	3,943	3,306	3,644	8,003

Source: Hawaii State Department of Health, Statistical Report (annual) and records.

Table 72.-- HAWAII STATE HOSPITAL BEDS AND OCCUPANCY: 1987 TO 1990

[Includes children's unit at Leahi Hospital assigned to the Hawaii State Hospital]

Year	Number of beds, June 30	Admissions 1/		Patients in hospital 2/	
		Total	First	Average 1/	June 30
1987	240	776	614	254	223
1988	240	811	651	241	210
1989	240	863	711	242	238
1990	240	811	618	242	209

1/ Year ended June 30.
2/ Includes patients on leave and absent without leave.
Source: Hawaii State Hospital, records.

Table 73.-- WAIMANO TRAINING SCHOOL AND HOSPITAL: 1987 TO 1990

[Waimano Training School and Hospital is the State institution for the mentally retarded]

Year	Beds, June 30	Admissions 1/	Patients in residence		Patients on leave, June 30 3/
			Average 2/	June 30	
1987	285	-	266	260	575
1988	285	2	225	199	3/ 3
1989	205	-	183	165	3/ 4
1990	205	10	153	158	3/ 6

1/ Year ended June 30. Excluding returns from community placement.
2/ Year ended June 30.
3/ Decline after 1987 reflects deinstitutionalization of the facility and placement into community-based ICF/MR.

Source: Hawaii State Department of Health, Statistical Report (annual); Waimano Training School and Hospital, records.

Table 74.-- HANSEN'S DISEASE PATIENTS REGISTERED: 1985 TO 1989

Subject	1985	1986	1987	1988	1989
Patients on register, Dec. 31 ..	651	653	633	571	541
Medically released	651	653	633	571	541
At home	546	549	532	474	447
Kalaupapa	101	99	97	93	90
Hale Mohalu at Leahi	5	5	4	4	4
New cases	31	37	24	20	18
Deaths	10	4	6	13	14

Source: Hawaii State Department of Health, Statistical Report, 1988, and Hansen's Disease Community Program, records.

Table 75.-- PHYSICIANS, DENTISTS, NURSES, AND PHARMACISTS LICENSED IN HAWAII, BY PLACE OF ADDRESS: JANUARY 9, 1990

Place of address	Physicians and surgeons 1/	Dentists	Registered nurses	Pharmacists
Total licensed	4,552	1,223	9,695	968
Hawaii addresses ...	2,528	918	7,630	548
Hawaii	197	82	650	51
Maui	175	56	568	39
Lanai	1	1	8	1
Molokai	8	4	39	2
Oahu	2,050	744	6,047	428
Kauai	97	31	318	27
Niihau	-	-	-	-
Out of State	2,024	305	2,065	420

1/ Permanent licenses only. Does not include interns, residents, or physicians who provided State government services only.

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Licensing Branch, records.

Table 76.-- MARRIAGES AND DIVORCES: 1970 TO 1989

[Place of occurrence basis]

Calendar year	Marriages		Divorces and annulments 2/	Rates per 1,000 resident population		Percent of marriages	
	Total	Resident 1/		Resident marriages	Divorces, annulments 2/	Nonresident 3/	Interracial 4/
1970 ...	10,599	7,889	2,589	10.2	3.4	25.6	40.7
1971 ...	9,734	8,104	3,691	10.1	4.6	16.7	42.7
1972 ...	9,750	8,482	3,891	10.2	4.7	13.0	41.7
1973 ...	9,776	8,656	4,170	10.2	4.9	11.5	43.7
1974 ...	9,649	8,500	4,111	9.8	4.7	11.9	43.2
1975 ...	9,673	8,440	4,265	9.5	4.8	12.7	43.1
1976 ...	9,769	8,318	4,712	9.2	5.2	14.9	43.2
1977 ...	10,266	8,427	4,601	9.2	5.0	17.9	43.3
1978 ...	10,736	8,650	4,837	9.3	5.2	19.4	44.5
1979 ...	11,678	9,424	5,055	9.9	5.3	19.3	44.6
1980 ...	11,856	9,442	4,438	9.7	4.6	20.4	44.4
1981 ...	12,218	9,445	4,253	9.6	4.3	22.7	44.5
1982 ...	13,483	10,053	4,233	10.1	4.2	25.4	45.0
1983 ...	14,062	10,216	4,583	10.0	4.5	27.3	45.5
1984 ...	14,982	10,020	4,769	9.7	4.6	33.3	46.3
1985 ...	15,421	9,893	4,887	9.4	4.7	35.8	46.9
1986 ...	16,219	9,571	4,674	9.0	4.4	30.4	46.5
1987 ...	16,567	9,714	4,419	9.0	4.1	41.3	44.6
1988 ...	17,281	9,708	5,020	8.9	4.6	43.8	42.9
1989 ...	19,974	9,952	5,613	8.9	5.0	44.6	44.3

1/ One or both partners residents of Hawaii.

2/ Final decrees only. An interlocutory decree of six months was abolished July 1, 1971.

3/ Both partners nonresidents of Hawaii.

4/ Excludes nonresident marriages.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 77.-- CHARACTERISTICS OF MARRIAGES AND DIVORCES: 1986 TO 1989

[Place of occurrence basis]

Subject	1986	1987	1988	1989
MARRIAGES				
Number	16,219	16,567	17,281	17,974
Percent on Oahu	62.0	61.4	58.8	57.7
Percent Hawaii residents:				
Both bride and groom	54.6	54.5	52.2	51.3
One partner only	4.4	4.2	4.0	4.1
Neither bride nor groom	41.0	41.3	43.8	44.6
Median age (years):				
Groom	30.6	30.7	31	31
Bride	28.1	28.4	28	28
Percent previously married:				
Groom	40.4	39.6	40.4	39.8
Bride	39.6	39.0	39.8	40.4
DIVORCES AND ANNULMENTS				
Number	4,674	4,419	5,020	5,613
Divorces	4,652	4,404	5,005	5,600
Annulments	19	15	14	13
Not reported	3	-	1	-
Percent occurring on Oahu	76.2	75.3	79.8	78.5
Percent Hawaii residents:				
Both partners	74.4	75.0	76.1	75.4
One partner only	25.4	24.7	23.6	23.1
Neither partner	0.1	0.2	0.3	0.1
Median age (years):				
Husband	34.3	35.2	34.9	35
Wife	32.1	32.7	32.6	32
Percent interracial 1/	38.2	38.9	40.5	39.4
Percent with children under 18 years	53.2	51.8	52.2	55.3
Median years married	6.4	6.4	6.6	6.2

1/ For these calculations, marriages where both bride and groom are in the "Part Hawaiian" or "Other races" categories are classified as non-interracial.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 78.-- MARRIAGES OCCURRING IN HAWAII, RESIDENT AND NONRESIDENT, BY RACE MIXTURE AND TYPE OF CEREMONY: 1989

Race mixture and type of ceremony	Total	At least one partner Hawaii resident	Both partners nonresidents
All marriages	17,974	9,952	8,022
Race of partners:			
Both partners same race 1/	12,836	5,546	7,290
Different	5,138	4,406	732
Percent different	28.6	44.3	9.1
Type of ceremony: -			
Civil ceremony	4,853	3,883	970
Religious ceremony	13,121	6,069	7,052

1/ Includes marriages with both partners of unknown race.
Source: Hawaii State Department of Health, special tabulations.

Table 79.-- MARITAL DISSOLUTION: 1970 TO 1988

Subject	1970	1980	1988	Percent		
				1970	1980	1988
Married couples 1/	154,678	185,698	237,534	100.0	100.0	100.0
Marriages ended	4,466	6,782	7,896	2.9	3.7	3.3
By divorce	2,589	4,438	5,020	1.7	2.4	2.1
By death	1,877	2,344	2,876	1.2	1.3	1.2
Husbands	1,312	1,678	2,069	0.8	0.9	0.9
Wives	565	666	807	0.4	0.4	0.3

1/ Figure for 1988 refers to number of married women, except separated.
Source: Hawaii State Department of Health, Statistical Report (annual); U.S. Bureau of the Census, 1970 Census of Population, PC(1)-C13, table 52, and 1980 Census of Population, PC80-1-B13, table 21; U.S. Bureau of the Census, Current Population Survey (see table 33).

Table 80.-- HEIGHT AND WEIGHT OF PERSONS 18 YEARS OLD AND OVER, BY SEX: 1975-1980

[Based on a sample of approximately 48,000 Hawaii residents 18 years old and over. Height and weight values are those reported by respondents; inclusion or exclusion of clothing or shoes not specified. Fractional values of 1/2 and over have been rounded upward. For further information, see Data Book 1984, tables 104-107]

Centile	Height (inches)		Weight (pounds)	
	Men	Women	Men	Women
10th	63.1	59.3	126.4	100.8
50th (median)	67.4	62.4	158.3	123.8
90th	72.1	66.5	199.5	166.9
Average	67.5	62.6	159.5	127.9

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulations.

Section 3

EDUCATION

This section presents statistics on enrollment in public and private schools, colleges and universities; students graduated and degrees awarded; the highest grade of school completed; achievement test results; school facilities, personnel, and expenditures; and libraries.

Enrollment in elementary, intermediate and high schools in 1989-1990 totaled 206,000, slightly more than in the preceding year but well below the all-time high of 216,000 reached in 1971-1972. There were 238 public schools with 9,200 classroom teachers and 170,000 students (82.6 percent of the total). There were also 136 private schools with 2,600 teachers and over 35,000 pupils. Students graduating from public and private high schools in 1988-1989 numbered 13,100. Some 54,300 students attended colleges and universities in the State in 1989-1990, including 18,600 on the Manoa Campus of the University of Hawaii, 600 at UH-West Oahu, 4,000 at UH-Hilo, 20,600 at six community colleges, and 10,500 in four private colleges and universities. Ninety-two percent of the children 5 and 6 years old were in school in 1980 (compared with 87 percent in 1970), and 47 percent in the 18- and 19-year-old group were enrolled (compared with 53 percent a decade earlier). The expenditure per pupil in public schools rose from $1,981 in 1978-1979 to $4,172 in 1988-1989. In scholastic aptitude tests, Hawaii students scored somewhat above national norms in the math component but considerably below in the verbal component. Among adults, an estimated 19 percent were functionally illiterate in English as of 1988. Almost one-fourth of all residents 25 years of age or more have completed four or more years of college. The Hawaii State Library System, with 49 locations on six islands, had 2.3 million books, 9,700 periodical subscriptions, and 78,000 phonodisks and phonotapes in 1989, with an annual circulation of 6.6 million. The University of Hawaii libraries in the same year counted 2.8 million volumes.

The principal sources of data on education are the U.S. Bureau of the Census, Hawaii State Department of Education, University of Hawaii, and private colleges and universities. Historical Statistics of Hawaii, Section 9, contains Island data back to 1820. Section 4 of the Statistical Abstract of the United States: 1990 presents comparable information for the nation as a whole.

Table 81.-- SCHOOL ENROLLMENT BY AGE: 1970 AND 1980

Age	Number enrolled in school		Percent enrolled in school	
	1970	1980	1970	1980
Persons 3 years old and over enrolled in school .	238,925	266,181	...	...
3 and 4 years old	7,097	11,436	24.5	39.0
5 and 6 years old	27,683	26,070	87.4	92.0
7 to 13 years old	108,757	102,604	96.7	98.9
14 and 15 years old	30,409	31,741	95.8	98.6
16 and 17 years old	26,362	31,711	90.8	93.4
18 and 19 years old	14,486	16,869	53.1	46.9
20 and 21 years old	7,672	11,164	22.4	25.6
22 to 24 years old	6,357	10,907	13.6	17.5
25 to 34 years old	6,942	15,254	6.4	8.5
35 years old and over	3,160	8,425	...	...

Source: U.S. Bureau of the Census, 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 51; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 66.

Table 82.-- PERCENT ENROLLED IN SCHOOL, FOR SELECTED AGE GROUPS, BY COUNTIES: 1980

County	5 and 6 years	7 to 13 years	14 and 15 years	16 and 17 years	18 and 19 years	20 and 21 years
State total	92.0	98.9	98.6	93.4	46.9	25.6
Hawaii	90.3	99.1	98.0	94.2	51.3	27.8
Honolulu	92.2	98.9	98.6	93.6	46.7	26.5
Kauai	94.9	98.9	100.0	95.0	52.0	18.1
Maui	90.9	98.9	98.4	90.3	40.7	11.5

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), tables 66 and 175.

Table 83.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER: 1950 TO 1980

Years completed	1950	1960	1970	1980
Percent high school graduates	31.6	46.1	61.9	73.8
Percent 4 years or more of college	6.1	9.0	14.0	20.3

Source: Robert C. Schmitt, *Historical Statistics of Hawaii* (1977), p. 227; U.S. Bureau of the Census, *1980 Census of Population, General Social and Economic Characteristics, Hawaii*, PC80-1-C-13 (June 1983), table 61.

Table 84.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER: ANNUAL AVERAGES, 1981-83, 1984-86, AND 1987-89

[Based on pooled samples of 1,831 households (5,676 persons of all ages) for 1981-1983, 1,630 households (4,987 persons) for 1984-1986, and 1,540 households (4,529 persons) for 1987-1989]

Years of school completed	1981-1983	1984-1986	1987-1989
Persons 25 years and over	561,575	622,737	678,012
None or unknown	5,838	9,199	7,278
Elementary	76,698	70,822	66,557
High school, 1 to 3 years	52,950	57,464	56,411
High school, 4 years	203,057	236,708	257,060
College, 1 to 3 years	104,577	116,565	137,675
College, 4 years	72,476	78,938	90,508
College, 5 or more years	45,979	53,042	62,523
Median (years)	12.7	12.7	12.8

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1981 to 1989; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 85.-- LITERACY IN ENGLISH: NOV. 1988-JAN. 1989

[Based on results of a test given to a sample of 814 Hawaii residents 18 years and over]

Characteristic	Estimated population 18 and over	Functional level 1/ (percent)		
		1	2	3
State total	796,001	2/ 19	28	53
County of residence:				
Honolulu	623,524	15	26	59
Hawaii	75,783	37	34	29
Maui	63,240	36	34	30
Kauai	33,454	26	32	42
Age:				
18 to 34 years	326,232	13	26	61
35 to 49 years	228,353	14	27	59
50 to 64 years	119,628	25	30	45
65 years and over	121,788	42	30	28
Sex:				
Male	392,747	19	30	52
Female	403,254	20	26	54
Years of school completed:				
Less than 9 years	54,924	77	21	2
9 to 11 years	81,192	54	35	11
12 years or more	659,885	6	21	73

1/ Level 1 refers to "adults who function with difficulty," that is, those who are "functually illiterate." Level 2 refers to "functional adults." Level 3 includes adults classified as "competent" or "proficient."

2/ Estimated at 153,664.

Source: Omnitrack Research and Marketing Group, Inc., for the Governor's Office of Children and Youth, Governor's Council on Literacy, Hawaii Statewide Literacy Assessment (HSLA), November 1988-January 1989 (1989), tables 1, 1a, 2, and 6.

Table 86.-- SCHOOLS, TEACHERS, ENROLLMENT, AND HIGH SCHOOL GRADUATES, FOR PUBLIC AND PRIVATE SCHOOL SYSTEMS: 1979-1980 TO 1989-1990

School year	Schools 1/			Teachers 1/		
	Total	Public	Private	Total	Public	Private
1979-80 ...	369	229	140	10,125	8,066	2,059
1980-81 ...	371	230	141	10,324	8,113	2,211
1981-82 ...	376	230	146	10,447	8,139	2,308
1982-83 ...	373	233	140	10,302	8,083	2,219
1983-84 ...	374	233	141	10,344	7,997	2,347
1984-85 ...	372	231	141	10,453	8,060	2,393
1985-86 ...	373	232	141	10,677	8,221	2,456
1986-87 ...	377	232	145	10,788	8,244	2,544
1987-88 ...	369	231	138	11,168	8,632	2,536
1988-89 ...	376	235	141	11,485	8,973	2,512
1989-90 ...	374	238	136	11,856	9,202	2,654

School year	Enrollment or membership 1/			High school graduates		
	Total	Public 2/	Private 3/	Total	Public	Private
1979-80 ...	205,580	168,393	37,187	14,013	11,493	2,520
1980-81 ...	202,972	165,094	37,878	14,647	12,088	2,559
1981-82 ...	200,844	162,805	38,039	13,948	11,563	2,385
1982-83 ...	200,129	162,024	38,105	13,248	10,757	2,491
1983-84 ...	200,240	162,241	37,999	12,992	10,454	2,538
1984-85 ...	200,869	163,860	37,009	12,516	10,092	2,424
1985-86 ...	200,952	164,169	36,783	12,468	9,958	2,510
1986-87 ...	201,188	164,640	36,548	13,097	10,491	2,606
1987-88 ...	202,419	166,240	36,179	13,448	10,800	2,648
1988-89 ...	203,358	167,899	35,459	13,100	10,597	2,503
1989-90 ...	205,591	169,904	35,687	(NA)	(NA)	(NA)

NA Not available.
1/ September data for all years.
2/ Excludes pre-kindergarten prior to 1980-1981.
3/ Includes pre-kindergarten for all years.
Source: Hawaii State Department of Education, records.

Table 87.-- SCHOOLS, TEACHERS, AND ENROLLMENT, SEPTEMBER 12, 1989, AND HIGH SCHOOL GRADUATES, 1988-1989, FOR PUBLIC AND PRIVATE SCHOOL SYSTEMS, BY ISLANDS

Island	Number of schools, September 12, 1989			Number of teachers, September 12, 1989		
	Total	Public	Private	Total	Public	Private
State total	374	238	136	11,856	9,202	2,654
Hawaii	45	31	14	1,494	1,290	204
Maui	37	23	14	925	799	126
Lanai	1	1	-	32	32	-
Molokai	7	5	2	100	95	5
Oahu	263	165	98	8,722	6,465	2,257
Kauai	20	12	8	581	519	62
Niihau	1	1	-	2	2	-

Island	Enrollment, September 12, 1989			High school graduates, 1988-1989 school year		
	Total	Public	Private	Total	Public	Private
State total	205,591	169,904	35,687	13,100	10,597	2,503
Hawaii	25,923	23,772	2,151	1,524	1,362	162
Maui	17,226	15,213	2,013	996	884	112
Lanai	480	480	-	38	38	-
Molokai	1,698	1,668	30	105	105	-
Oahu	149,911	119,313	30,598	9,830	7,602	2,228
Kauai	10,321	9,426	895	607	606	1
Niihau	32	32	-	-	-	-

Source: Hawaii State Department of Education, records.

Table 88.-- PUBLIC AND PRIVATE SCHOOL ENROLLMENT, BY GRADES: 1987 TO 1989

[September data]

Grade	1987 1/	1988 1/	1989		
			Total	Public	Private
All grades	202,419	203,358	205,591	169,904	35,687
Nursery	2,734	2,698	2,950	379	2,571
Kindergarten	16,915	16,924	17,024	14,157	2,867
1	16,718	16,995	17,084	14,552	2,532
2	16,111	16,358	16,714	14,188	2,526
3	15,286	15,856	16,084	13,671	2,413
4	14,436	14,948	15,562	13,256	2,306
5	14,231	14,229	14,766	12,509	2,257
6	13,692	14,106	14,133	11,935	2,198
7	13,402	13,956	14,303	11,455	2,848
8	13,497	13,368	13,934	11,200	2,734
9	14,476	14,396	14,500	11,874	2,626
10	14,103	13,761	13,382	10,858	2,524
11	14,260	13,495	13,262	10,798	2,464
12	13,239	12,645	11,906	9,500	2,406
Specials 2/	9,319	9,623	9,987	9,572	415

1/ Combined totals for public and private systems.
2/ Public school data include ungraded students in special schools.
Source: Hawaii State Department of Education, records.

Table 89.-- SCHOOL ENROLLMENT BY GRADES, BY COUNTIES: SEPTEMBER 12, 1989

[Combined totals for public and private systems]

Grade	State total	Hawaii	Maui	Honolulu	Kauai
All grades	205,591	25,923	19,404	149,911	10,353
Nursery	2,950	255	144	2,443	108
Kindergarten	17,024	1,966	1,643	12,539	876
1	17,084	2,115	1,666	12,393	910
2	16,714	2,134	1,612	12,080	888
3	16,084	2,069	1,576	11,597	842
4	15,562	2,116	1,449	11,219	778
5	14,766	1,983	1,388	10,577	818
6	14,133	1,908	1,368	10,110	747
7	14,303	1,940	1,360	10,304	699
8	13,934	1,831	1,331	10,075	697
9	14,500	1,702	1,401	10,745	652
10	13,382	1,651	1,291	9,842	598
11	13,262	1,549	1,264	9,828	621
12	11,906	1,458	1,073	8,764	611
Special 1/	9,987	1,246	838	7,395	508

1/ Includes ungraded students in special schools.
Source: Hawaii State Department of Education, records.

Table 90.-- FEDERALLY-CONNECTED PUPILS IN PUBLIC SCHOOLS: FALL, 1986 TO 1989

Category	1986	1987	1988	1989
All federally-connected pupils	37,843	37,721	36,965	36,899
Percent of total enrollment	23.0	22.7	22.1	21.8
Military dependents	19,907	20,540	20,104	20,228
Others 1/	17,936	17,181	16,861	16,671

1/ Includes dependents of civilian employees of armed forces.
Source: Hawaii State Department of Education, records.

Table 91.-- PRIVATE SCHOOLS, TEACHERS, AND ENROLLMENT, SEPTEMBER 12, 1989, AND PRIVATE HIGH SCHOOL GRADUATES, 1988-1989, BY CHURCH AFFILIATION

Church affiliation	Schools	Teachers	Enroll-ment	High school graduates
Total	136	2,542	35,687	2,503
Church-affiliated	90	1,400	21,911	1,245
Roman Catholic	44	742	12,964	759
Other church-affiliated	46	658	8,947	486
Non-church-affiliated ...	46	1,142	13,776	1,258

Source: Hawaii State Department of Education, records.

Table 92.-- EXPENDITURES, COST PER PUPIL, AVERAGE SALARIES, AND DAYS OF SCHOOL, FOR PUBLIC ELEMENTARY AND SECONDARY EDUCATION: 1979-1980 TO 1989-1990

Fiscal year	Expenditures (dollars)		Cost per pupil 1/ (dollars)	Average annual salary of teachers (dollars)	Number of days of school
	Current operations	Capital outlay			
1979-1980 ..	360,316,441	30,489,000	2,163.62	19,858	2/ 163
1980-1981 ..	402,344,699	30,860,000	2,457.32	21,085	176
1981-1982 ..	432,228,402	17,237,000	2,700.72	22,473	177
1982-1983 ..	497,763,951	23,304,890	3,098.23	21,504	3/ 174
1983-1984 ..	509,710,506	11,941,000	3,255.97	25,380	176
1984-1985 ..	526,741,742	13,652,707	3,351.18	25,648	174
1985-1986 ..	585,533,781	27,812,430	3,795.31	26,595	176
1986-1987 ..	589,592,735	23,445,100	3,748.38	27,546	176
1987-1988 ..	622,638,850	32,211,000	3,950.49	28,353	177
1988-1989 ..	661,605,931	37,505,200	4,171.74	29,835	174
1989-1990 ..	727,501,992	50,569,700	4,605.11	32,252	175

1/ Based on average daily membership.

2/ Scheduled school days numbered 177; 14 days were missed because of "blue collar strike."

3/ One day missed due to Hurricane Iwa.

Source: Hawaii State Department of Education, records.

Table 93.-- SCHOLASTIC APTITUDE TEST SCORE AVERAGES: 1975 TO 1990

Component	1974-75	1979-80	1984-85	1987-88	1988-89	1989-90 1/
Verbal	414	396	401	408	406	404
Math	478	472	476	480	482	481

1/ The U.S. averages in 1989-90 were 424 for verbal and 476 for math.

Source: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics 1989 (December 1989), p. 124; Honolulu Advertiser, September 12, 1989, p. A3, and August 28, 1990, pp. A1 and A5.

Table 94.-- STANFORD ACHIEVEMENT TEST RESULTS FOR PUBLIC SCHOOL GRADES 3, 6, 8, AND 10: 1989

[Percent of students taking test]

Subject and level	Norm	Grade 3	Grade 6	Grade 8	Grade 10
Reading:					
Below average	23	22	16	25	22
Average	54	58	56	54	61
Above average	23	20	28	21	17
Math:					
Below average	23	18	19	26	20
Average	54	51	45	49	51
Above average	23	31	36	25	29

Source: Honolulu Advertiser, October 27, 1989, pp. A-1 and A-4.

Table 95.-- ENROLLMENT AT THE UNIVERSITY OF HAWAII, BY CAMPUS: FALL 1979 TO 1989

[Fall enrollment in regular credit programs, including concurrent registrants and early admits]

Year	Total, all campuses	University of Hawaii at Manoa				Univ. of Hawaii at Hilo 2/	West Oahu College
		Total	Undergraduates	Graduates	Other 1/		
1979 ..	43,375	20,833	14,902	4,258	1,673	3,099	258
1980 ..	43,542	20,319	14,402	4,235	1,682	3,504	247
1981 ..	45,425	20,629	14,487	4,324	1,818	3,478	369
1982 ..	47,527	21,065	14,879	4,328	1,858	3,752	410
1983 ..	46,468	21,112	15,091	4,339	1,682	3,613	433
1984 ..	43,970	20,023	14,234	4,255	1,534	3,237	435
1985 ..	43,369	19,666	13,565	4,283	1,818	3,200	443
1986 ..	42,837	18,977	12,762	4,438	1,777	3,300	480
1987 ..	43,054	18,448	12,254	4,400	1,794	3,553	482
1988 ..	42,767	18,477	12,121	4,382	1,974	3,634	492
1989 ..	43,785	18,622	12,021	4,601	2,000	3,973	601

Year	Community Colleges 3/						
	Total	Honolulu	Kapiolani	Leeward	Windward	Kauai	Maui
1979 ..	19,185	4,576	4,641	5,540	1,505	1,104	1,819
1980 ..	19,472	4,509	4,978	5,575	1,442	1,082	1,886
1981 ..	20,949	5,211	5,089	6,032	1,489	1,201	1,927
1982 ..	22,300	5,331	5,560	6,261	1,568	1,272	2,308
1983 ..	21,310	5,131	5,284	6,060	1,462	1,190	2,183
1984 ..	20,275	4,554	5,281	5,785	1,366	1,176	2,113
1985 ..	20,060	4,539	5,058	5,667	1,543	1,177	2,076
1986 ..	20,080	4,275	5,226	5,703	1,644	1,248	1,984
1987 ..	20,571	4,527	5,505	5,748	1,650	1,183	1,958
1988 ..	20,164	4,303	5,599	5,445	1,558	1,239	2,020
1989 ..	20,589	4,199	5,741	5,652	1,606	1,313	2,078

Footnotes and source follow next table.

Table 96.-- DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED BY THE UNIVERSITY OF HAWAII: 1979 TO 1989

Year ended June 30	University of Hawaii at Manoa					
	Associate	Bachelor	Master	Doctor	First professional 4/	Other 5/
1979	69	2,899	1,063	122	122	134
1980	46	2,859	969	102	136	124
1981	57	2,701	968	115	152	106
1982	52	2,588	993	111	137	122
1983	52	2,639	938	120	132	120
1984	60	2,698	945	101	131	166
1985	90	2,642	914	138	137	189
1986	66	2,679	837	132	131	244
1987	65	2,601	794	130	137	249
1988	54	2,521	830	111	126	259
1989	92	2,404	833	162	119	224

Year ended June 30	University of Hawaii at Hilo 2/			West Oahu College: Bachelor	Community Colleges 3/	
	Certificates 6/	Associate degrees	Bachelor degrees		Certificates 6/	Associate degrees
1979	92	255	166	22	509	1,964
1980	86	256	160	48	481	1,807
1981	57	261	171	47	483	1,763
1982	74	263	160	46	519	1,882
1983	68	242	193	91	509	2,008
1984	80	239	188	136	473	2,026
1985	67	229	180	77	454	1,875
1986	56	196	183	98	478	1,933
1987 7/ .	56	202	201	139	378	1,840
1988 7/ .	48	206	208	108	345	1,731
1989 7/ .	74	180	154	116	201	1,609

1/ Includes unclassified, special and no data on student level.
2/ Hilo College, College of Agriculture, and Hawaii Community College.
3/ Excludes Hawaii Community College, which is part of UHH.
4/ Includes Doctor of Jurisprudence (J.D.) and Doctor of Medicine (M.D.).
5/ Certificates in Dental Hygiene and professional diplomas.
6/ Certificates of Achievement. At UHH, includes Certificates in Education beginning 1989 (30 in 1989).
7/ For community colleges, excludes no data (64 in 1987, 15 in 1988, 21 in 1989).

Source: University of Hawaii, Office of Institutional Research and Analysis, records.

Table 97.-- UNIVERSITY OF HAWAII CURRICULA, TUITION, FINANCES, AND FACULTY AND STAFF: 1987 TO 1989

Subject	1987	1988	1989
Curricula offered at Manoa Campus, Fall 1/	252	257	260
Bachelor's degree programs	85	88	88
Master's degree programs	84	84	85
Doctoral programs (DrPH, EdD, PhD)	48	49	49
Other programs 1/	35	36	38
Tuition per semester (full-time undergraduate, regular session):			
Manoa Campus: Resident	$ 515	$ 565	$ 615
Nonresident	1,840	1,840	1,840
Hilo (upper division): Resident	475	525	575
Nonresident	1,720	1,720	1,720
West Oahu College: Resident	365	390	415
Nonresident	1,240	1,240	1,240
Community colleges: Resident	155	175	200
Nonresident	1,030	1,130	1,230
Finances, fiscal year ending June 30:			
Current fund revenues ($1,000)	349,546	392,143	422,113
Current fund expenditures ($1,000)	340,375	374,529	407,831
Number of students receiving financial aid	16,182	15,556	(NA)
Faculty and staff, October	6,973	7,168	7,388
Board of Regents appointees	5,360	5,482	5,806
Full-time	3,419	3,528	3,682
Part-time	1,941	1,954	2,124
Civil Service personnel	1,613	1,686	1,582
Full-time	1,566	1,637	1,540
Part-time	47	49	42

NA Not available.

1/ Includes 2-year, undergraduate, and graduate certificate programs first professional degree programs (JD, MD), and other programs.

Source: Office of Institutional Research and Analysis, University of Hawaii, Facts About the University of Hawaii (annual), and records.

Table 98.-- ENROLLMENT AND EARNED DEGREES CONFERRED, FOR PRIVATE COLLEGES AND UNIVERSITIES: 1987 TO 1990

[Excludes extension programs of mainland and foreign schools and other limited or specialized curriculum programs]

Year and institution 1/	Fall enrollment 2/			Earned degrees conferred 3/		
	Total	Undergrad	Graduate	Associate	Bachelor's	Master's
1987, total	9,576	9,038	538	303	827	132
Brigham Young ..	2,079	2,079	-	57	212	-
Chaminade	2,584	2,276	308	80	271	132
Hawaii Loa	399	399	-	4	68	-
Hawaii Pacific .	4,514	4,284	230	162	276	-
1988, total	9,612	8,957	655	343	876	136
Brigham Young ..	2,055	2,055	-	75	212	-
Chaminade	2,507	2,169	338	85	268	125
Hawaii Loa	490	490	-	3	103	-
Hawaii Pacific .	4,560	4,243	317	180	293	11
1989, total	10,500	9,723	777	376	1,041	165
Brigham Young ..	2,040	2,040	-	92	310	-
Chaminade	2,903	2,588	315	109	293	126
Hawaii Loa	595	595	-	-	104	-
Hawaii Pacific .	4,962	4,500	462	175	334	39
1990, total	10,761	9,947	814	435	1,261	196
Brigham Young ..	2,140	2,140	-	143	471	-
Chaminade	2,446	2,164	282	115	291	136
Hawaii Loa	618	618	-	2	93	-
Hawaii Pacific .	5,557	5,025	532	175	406	60

1/ Brigham Young University, Hawaii Campus (in Laie); Chaminade University of Honolulu; Hawaii Loa College (in Kaneohe); Hawaii Pacific University (in Honolulu).

2/ In regular credit programs.

3/ Year ended June 30.

Source: Compiled by Hawaii State Department of Business, Economic Development & Tourism from college officials.

Table 99.-- RESIDENCE AND MIGRATION OF ALL NEW COLLEGE STUDENTS: FALL 1979, 1981, 1984, AND 1986

[New students are those students who are enrolled at the reporting institution for the first time at each of the following levels-undergraduate, graduate, first-professional, or unclassified]

Category	1979	1981	1984	1986
Students enrolled in State 1/	15,450	16,235	15,611	14,850
Students residents of State 2/ ...	16,411	17,318	15,429	15,644
Students remaining in State 3/ ...	12,725	13,626	12,556	12,963
Migration of students:				
Out of State	3,686	3,692	2,873	2,681
Into State	2,725	2,609	3,055	1,887
Net migration	-961	-1,083	+182	-794

1/ All first-time students reported by the institution attended; i.e., all in-migrants (including foreign students) and "remaining" students.

2/ All students residing in Hawaii when first admitted to the reporting institution (whether in Hawaii, on the Mainland, or in outlying areas) at the current student level.

3/ Students who attend institutions in their home State.

Source: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics 1981 (February 1981), p. 88, Digest of Education Statistics 1983-84 (1984), p. 90, Digest of Education Statistics 1987 (May 1987), p. 143, and Digest of Education Statistics 1989, (Dec. 1989), p. 191.

Table 100.-- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES: 1984 TO 1988

[In thousands of dollars. Fiscal year data]

Institution	1984	1985	1986	1987	1988
All universities and colleges ...	38,299	50,421	47,676	58,671	58,779
University of Hawaii at Manoa ...	30,748	42,806	38,815	39,899	45,190

Source: National Science Foundation, Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1988, NSF 89-325 (1989), pp. 121 and 123.

Table 101.-- CHARACTERISTICS OF THE HAWAII STATE LIBRARY SYSTEM: 1984 TO 1989

Subject	1984	1985	1986	1987	1988	1989
Library locations, June 30	49	49	49	49	49	49
Oahu	23	23	23	23	23	23
Other islands	26	26	26	26	26	26
Personnel, June 30 1/ ..	492.05	497.05	497.55	497.55	532.05	543.05
Librarians	131.00	134.00	133.00	133.00	146.00	153.00
All others	361.05	363.05	364.55	364.55	386.05	390.05
Hours open 2/	54	54	54	54	54	54
Collections, June 30: Books 3/	2,207.4	1,976.8	2,096.8	2,073.8	2,225.7	2,320.8
Circulation, year ended June 30 3/	5,490.9	6,011.4	6,500.2	6,480.5	6,552.9	6,561.9

1/ Full-time equivalent basis, excluding student help but including permanent and temporary State general-funded positions and temporary Federal funded positions.

2/ Regular weekly totals for Hawaii State Library, 478 South King Street, Honolulu.

3/ In thousands.

Source: Hawaii State Public Library System, Research & Evaluation Services, records.

Table 102.-- CHARACTERISTICS OF THE HAWAII STATE LIBRARY SYSTEM BY DISTRICTS: 1989

District	Library locations, June 30	Personnel, June 30 1/	Circulation, year ended June 30
Total system	49	543.05	6,561,905
Oahu	22	293.00	4,513,537
Hawaii State Library	1	88.00	536,782
East Oahu Library District	12	121.50	2,477,632
West Oahu Library District	9	83.50	1,499,123
Other islands	26	142.55	2,007,190
Hawaii Library District	13	62.55	1,009,759
Kauai Library District	5	34.50	431,718
Maui Library District 2/	8	45.50	565,713
Library for the Blind and Physically Handicapped	1	14.50	41,178
Administration/Centralized Processing Center	...	93.00	...

District	Collections, June 30			
	Books	Periodical subscriptions	Phonodisks/ phonotapes	Video tapes
Total system	2,320,850	9,743	78,468	1,386
Oahu	1,502,326	5,755	50,283	817
Hawaii State Library	420,294	2,035	18,122	557
East Oahu Library District	655,300	2,283	20,813	260
West Oahu Library District	426,732	1,437	11,348	-
Other islands	720,663	3,448	24,942	569
Hawaii Library District	310,314	1,604	7,236	142
Kauai Library District	181,680	997	10,322	148
Maui Library District 2/	228,669	1,247	7,384	279
Library for the Blind and Physically Handicapped	3/ 97,861	3/ 140	4/ 3,243	-

1/ Full-time equivalent basis, including permanent and temporary State general-funded and temporary Federal funded positions, but excluding student help.

2/ Includes libraries on Lanai (1 location), Maui (6 locations), and Molokai (1 location).

3/ Includes print, braille, and recorded media.

4/ Includes music recordings only.

Source: Hawaii State Public Library System, Research & Evaluation Services, records.

Table 103.-- UNIVERSITY OF HAWAII LIBRARY SYSTEM HOLDINGS AND CIRCULATION, BY CAMPUS: 1987 TO 1989

Subject and campus	1987	1988	1989
NUMBER OF VOLUMES, JUNE 30			
All campuses	2,616,130	2,709,892	2,788,392
University of Hawaii at Manoa	2,164,497	2,244,118	2,312,229
University of Hawaii-West Oahu	21,577	20,482	22,832
University of Hawaii at Hilo [2]	188,692	194,692	198,451
Community colleges, total [2]	241,364	250,600	254,880
Honolulu	48,726	50,681	51,710
Kapiolani	37,215	38,982	37,945
Leeward	54,953	56,054	56,907
Windward	32,348	33,043	33,970
Kauai	36,090	37,736	39,567
Maui	32,032	34,104	34,781
CIRCULATION, YEAR ENDED JUNE 30			
All campuses	548,529	583,250	622,821
University of Hawaii at Manoa	332,036	374,260	404,034
University of Hawaii-West Oahu	6,565	5,336	4,902
University of Hawaii at Hilo [1]	52.900	48,885	57,901
Community colleges, total [1]	157,028	154,769	155,984
Honolulu	48,448	46,735	52,101
Kapiolani	16,827	17,544	17,860
Leeward	39,339	38,407	33,011
Windward	13,842	15,070	13,191
Kauai	15,649	13,417	17,148
Maui	22,923	23,596	22,673

[1] Hawaii Community College is included with the University of Hawaii at Hilo.

Source: University of Hawaii at Manoa, University Libraries, records.

Section 4

LAW ENFORCEMENT, COURTS AND PRISONS

Statistics in this section refer to crimes committed, stolen property, arrests, the police, attorneys, the judiciary system, prisons, and youth correctional facilities.

Major offenses reported to the police in 1989 numbered 69,300, compared with 65,700 in 1988 and 71,300 in 1980. The rate per 1,000 resident population increased from 53 in 1985 to 62 in 1989. Seventy-six percent of the serious crimes in 1989 occurred on Oahu. For the State as a whole, major offenses known to police in 1989 included 53 murders or cases of non-negligent manslaughter, 479 rapes, 912 robberies, 1,462 aggravated assaults, 14,379 burglaries, 47,257 cases of larceny, and 4,330 auto thefts. The value of property reported stolen in 1989 amounted to $45 million, exclusive of motor vehicles; only 5.1 percent was recovered. Authorities confiscated 1,615,000 marijuana plants, with an estimated value of $1.6 billion, during the year. Confirmed instances of child abuse and neglect numbered 2,619 in 1989. Fifteen percent of the major offenses known to police were cleared by arrest or otherwise in 1989. Forty-three percent of the persons arrested for major crimes and 21 percent of those arrested for lesser offenses in 1989 were less than eighteen years of age. The number of inmates in the ten State correctional institutions averaged 2,203 during fiscal 1989; of this number, 1,428 were adults serving time for felonies. Cases concluded in the State Supreme Court, Intermediate Court of Appeals, four circuit courts, and four district courts and their divisions during fiscal 1989 numbered 945,000, including 821,000 traffic cases. Filings in the United States District Court for Hawaii in 1989 included 983 civil cases, 1,447 criminal cases, and 855 bankruptcy cases. The last legal execution in Hawaii took place in 1947. There were 4,768 attorneys licensed in Hawaii as of mid-1990, eleven times the 1960 total. Criminal justice system expenditures amounted to $270 million in fiscal 1987.

Statistics on law enforcement, courts, and corrections in Hawaii appear in the annual reports of the county police departments, the State Judiciary, the Department of Public Safety (formerly Corrections), and the Administrative Office of the United States Courts. The Hawaii Criminal Justice Data Center issues quarterly and annual reports titled Crime in Hawaii. Figures on crime, the courts, and corrections in earlier years appear in Historical Statistics of Hawaii, Section 10. National data are summarized in the Statistical Abstract of the United States: 1990, Section 5.

Table 104.-- ACTUAL MAJOR (PART I) OFFENSES KNOWN TO THE POLICE, BY COUNTIES: 1979 TO 1989

[Part I offenses include murder, negligent and nonnegligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and, since 1979, arson. Arson, however, is excluded from this table through 1984. Actual offenses include reported or known offenses, less unfounded cases]

Year	State total		City and County of Honolulu	Hawaii County	Kauai County	Maui County
	Number	Rate 1/				
1979	65,597	69.0	52,310	4,634	2,425	6,228
1980	71,292	73.6	56,885	5,222	2,637	6,548
1981	63,454	64.7	48,938	5,623	2,505	6,388
1982	64,679	64.8	49,826	5,516	2,515	6,822
1983	59,086	58.0	45,874	4,869	2,303	6,040
1984	56,913	55.0	44,560	4,697	2,145	5,511
1985 2/ ..	55,372	52.7	42,475	5,147	2,144	5,606
1986 2/ ..	60,716	57.1	46,842	5,370	2,428	6,076
1987 2/ ..	63,575	58.8	49,418	4,955	2,555	6,647
1988 2/ ..	65,729	60.0	49,653	5,938	2,548	7,590
1989 2/ ..	69,328	62.3	52,436	6,860	2,781	7,251

1/ Annual rate per 1,000 resident population, July 1.

2/ Includes arson, omitted before 1985. Excluding arson, the 1985 statewide total was 54,814 offenses, or 52.2 per 1,000 inhabitants.

Source: Hawaii Criminal Justice Data Center, Crime in Hawaii (annual), and data compiled from Police Department annual reports and records.

Table 105.-- ACTUAL PART I OFFENSES KNOWN TO THE POLICE, BY TYPE OF OFFENSE, FOR THE STATE OF HAWAII: 1980 TO 1989

Offense	1980	1981	1982	1983	1984
All Part I offenses 1/	71,292	63,454	64,679	59,086	56,913
Murder, non-neg. manslaughter	85	47	31	57	34
Negligent manslaughter	135	98	29	29	-
Forcible rape	327	314	319	300	315
Robbery	1,821	1,444	1,561	1,315	1,202
Aggravated assault	620	570	590	868	857
Burglary	17,668	16,611	16,337	13,589	12,588
Larceny	44,766	40,102	41,568	38,585	38,292
Motor vehicle theft	5,870	4,268	4,244	4,343	3,625
Arson 2/	...	...	...	...	...

Offense	1985	1986	1987	1988	1989
All Part I offenses	55,372	60,716	63,575	65,729	69,328
Murder, non-neg. manslaughter	43	51	52	45	53
Negligent manslaughter 3/	-	-	63	65	69
Forcible rape	310	329	396	353	479
Robbery	1,048	1,129	1,043	914	912
Aggravated assault	912	1,095	1,364	1,502	1,462
Burglary	12,164	14,218	12,500	13,665	14,379
Larceny	37,357	39,922	43,669	44,859	47,257
Motor vehicle theft	2,980	3,486	3,986	3,927	4,330
Arson 2/	558	486	502	399	387

1/ The 1980, 1981, and 1982 totals are corrected from Data Book 1989, table 107.

2/ Not included in Part I offense tabulations before 1985.

3/ Not separately reported in 1984, 1985, and 1986.

Source: Compiled by Hawaii Criminal Justice Data Center from Annual Reports of the Hawaii County Police Department, Honolulu Police Department, Kauai Police Department, and Maui Police Department.

Table 106.-- ACTUAL OFFENSES KNOWN TO POLICE AND OFFENSES CLEARED BY ARREST OR OTHERWISE, BY CLASS OF OFFENSE: 1979 TO 1989

[Arson, reclassified as a Part I offense effective 1979, is included as a Part II offense in this table prior to 1986]

Year	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	Part I	Part II, except traffic	Part I	Part II, except traffic	Part I	Part II, except traffic
1979 ..	65,597	89,365	11,933	56,988	18.2	63.8
1980 ..	71,292	93,712	12,753	55,233	17.9	58.9
1981 ..	63,454	94,179	10,295	56,154	16.2	59.6
1982 ..	64,679	92,898	10,934	53,318	16.9	57.4
1983 ..	59,086	88,299	10,355	53,010	17.5	60.0
1984 ..	56,852	94,240	9,553	59,272	16.8	62.9
1985 ..	54,814	97,661	10,066	62,016	18.4	63.5
1986 ..	60,716	100,283	10,663	61,094	17.6	60.9
1987 ..	63,575	107,259	12,282	66,416	19.3	61.9
1988 ..	65,729	113,073	11,886	72,026	18.1	63.7
1989 ..	69,328	121,060	10,444	72,408	15.1	59.8

1/ For Honolulu prior to 1989 and the Neighbor Island counties in all years, annual data on clearances include prior years' offenses cleared in the current year. The 1989 data for Honolulu, in contrast, are limited to 1989 offenses cleared as of June 1, 1990, and exclude 1989 clearances of offenses committed in earlier years. Also in Honolulu, effective February 1989, reclassified offenses are not being unfounded and clearance information is not being updated once an offense has been reported to the Uniform Crime Reports (UCR). This generally results in Honolulu offenses being slightly overreported to UCR, while clearances are substantially underreported.

Source: Data compiled by Hawaii Criminal Justice Data Center from Police Department annual reports and Uniform Crime Reporting Program.

Table 107.-- ACTUAL OFFENSES KNOWN TO POLICE AND OFFENSES CLEARED BY ARREST OR OTHERWISE, BY CLASS OF OFFENSE, BY COUNTIES: 1989

County	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	Part I	Part II, except traffic	Part I	Part II, except traffic	Part I	Part II, except traffic
State total .	69,328	121,060	10,444	72,408	15.1	59.8
Honolulu	52,436	89,074	7,277	56,384	13.9	63.3
Hawaii	6,860	10,138	1,634	6,356	23.8	62.7
Kauai	2,781	4,708	575	2,004	20.7	42.6
Maui	7,251	17,140	958	7,664	13.2	44.7

1/ See table 106, footnote 1.

Source: Hawaii Criminal Justice Data Center, from data provided by county police departments.

Table 108.-- MARIJUANA CONFISCATED OR DESTROYED BY AUTHORITIES, BY COUNTIES: 1984 TO 1989

[Confiscated by either the county police departments or the State Department of Land and Natural Resources]

Calendar year	Number of plants, by counties					Estimated value 1/ (million dollars)
	State total	Hawaii	Maui	Honolulu	Kauai	
1984	533,238	325,761	37,388	120,238	49,851	533
1985	809,839	563,621	79,537	73,452	93,229	810
1986	1,050,650	742,238	101,662	31,372	175,378	1,051
1987	1,901,646	1,737,685	70,181	20,464	73,316	1,902
1988	1,923,235	1,834,353	19,077	8,647	61,158	1,923
1989	1,614,515	1,564,434	32,637	3,652	13,792	1,615

1/ Approximate potential value at $1,000 per plant. Excludes value of confiscated processed marijuana.

Source: Compiled from county police departments and State Department of Land and Natural Resources by the Hawaii Criminal Justice Data Center.

Table 109.-- ACTUAL PART I OFFENSES KNOWN TO POLICE AND PART I OFFENSES CLEARED BY ARREST OR OTHERWISE, FOR THE STATE AND OAHU: 1989

Type of offense	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	State total	Oahu only	State total	Oahu only	State total	Oahu only
All Part I offenses	69,328	52,436	10,444	7,277	15.1	13.9
Murder and nonnegligent manslaughter	53	43	30	26	56.6	60.5
Manslaughter (neg.) ...	69	68	40	40	58.0	58.8
Rape	479	395	269	225	56.2	57.0
Robbery	912	802	134	93	14.7	11.6
Aggravated assault	1,462	959	603	307	41.2	32.0
Burglary	14,379	10,125	1,180	601	8.2	5.9
Larceny	47,257	36,208	7,498	5,503	15.9	15.2
Motor vehicle theft ...	4,330	3,519	641	444	14.8	12.6
Arson	387	317	49	38	12.7	12.0

1/ See table 106, footnote 1.
Source: Hawaii Criminal Justice Data Center, from data provided by county police departments.

Table 110.-- POLICE PERSONNEL, BY COUNTIES: 1989

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Police personnel	3,052	2,202	397	153	300
Per 1,000 de facto population	2.42	2.40	2.88	2.21	2.15

Source: County police department records.

Table 111.-- PERSONS ARRESTED FOR PART I AND PART II OFFENSES, BY AGE AND SEX, FOR COUNTIES: 1989

Subject	State total	Counties			
		Honolulu	Hawaii	Maui	Kauai
PART I OFFENSES 1/					
Total	12,092	9,061	1,478	943	610
Juveniles	5,183	3,978	607	339	259
Male	3,982	3,108	445	263	166
Female	1,201	870	162	76	93
Adults	6,909	5,083	871	604	351
Male	5,239	3,884	637	470	248
Female	1,670	1,199	234	134	103
PART II OFFENSES (EXCEPT TRAFFIC)					
Total	51,481	39,769	5,206	3,877	2,629
Juveniles	10,840	7,675	1,473	770	922
Male	7,205	5,174	904	503	624
Female	3,635	2,501	569	267	298
Adults	40,641	32,094	3,733	3,107	1,707
Male	34,410	27,212	3,141	2,618	1,439
Female	6,231	4,882	592	489	268

1/ Includes arson.

Source: Hawaii Criminal Justice Data Center, data from Uniform Crime Reports.

Table 112.-- CHILD ABUSE AND NEGLECT REPORTS: 1983 TO 1989

Subject	1983	1984	1985	1986	1987	1988	1989
Reports	3,635	4,385	4,346	4,824	4,790	4,539	4,634
Confirmed ..	1,622	2,181	2,386	2,586	2,531	2,572	2,619

Source: Hawaii State Department of Human Services, records.

Table 113.-- VALUE OF PROPERTY REPORTED STOLEN AND VALUE OF STOLEN PROPERTY RECOVERED, BY CATEGORY: 1979 TO 1989

Year	Locally stolen motor vehicles			Other stolen property		
	Value stolen ($1,000)	Value recovered 1/		Value stolen ($1,000)	Value recovered 1/	
		Amount ($1,000)	Percent		Amount ($1,000)	Percent
1979 ...	14,469.1	9,999.0	69.1	24,903.4	2,639.5	10.6
1980 ...	14,075.2	10,296.9	73.2	31,832.9	2,102.2	6.6
1981 ...	12,033.6	9,387.9	78.0	31,667.8	2,380.6	7.5
1982 ...	12,524.0	8,328.0	66.5	26,001.2	2,028.3	7.8
1983 ...	13,904.4	9,474.9	68.1	25,941.6	2,151.1	8.3
1984 ...	12,327.9	9,110.0	73.9	26,576.6	1,861.3	7.0
1985 ...	10,376.8	7,683.9	74.0	24,114.3	2,003.5	8.3
1986 ...	11,491.6	7,857.3	68.4	28,236.2	1,931.2	6.8
1987 ...	13,222.5	10,021.0	75.8	32,071.0	3,089.0	9.6
1988 ...	15,956.0	12,312.1	77.2	37,895.0	1,965.8	5.2
1989 ...	11,067.8	7,397.7	76.2	45,311.0	2,310.9	5.1

1/ See table 106, footnote 1.

Source: Hawaii Criminal Justice Data Center, data from Uniform Crime Reports.

Table 114.-- VALUE OF PROPERTY REPORTED STOLEN AND VALUE OF STOLEN PROPERTY RECOVERED, BY COUNTIES: 1989

Subject	State total	Counties			
		Honolulu	Hawaii	Maui	Kauai
Value of property stolen ($1,000)	56,378.8	43,369.0	4,140.9	6,818.8	2,050.1
Motor vehicles	11,067.8	7,144.7	921.2	2,218.5	783.4
Other property	45,311.0	36,224.3	3,219.7	4,600.2	1,266.6
Value of stolen property recovered 1/ ($1,000)	9,708.6	5,570.8	1,264.7	2,367.3	505.7
Motor vehicles	7,397.7	4,357.8	685.4	1,922.8	431.7
Other property	2,310.9	1,213.0	579.3	444.5	74.0
Percent of value recovered	17.2	12.8	30.5	34.7	24.7
Motor vehicles	76.2	61.0	74.4	86.7	55.1
Other property	5.1	3.3	18.0	9.7	5.8

1/ See table 106, footnote 1.

Source: Hawaii Criminal Justice Data Center, data from Uniform Crime Reports.

Table 115.-- STATE AND COUNTY GOVERNMENT EMPLOYMENT AND EXPENDITURES FOR CRIMINAL JUSTICE ACTIVITIES: 1987

Subject	Total	Police protection	Correction	Judicial and legal
Full-time equivalent employment, October	1/ 4,281	2,924	1,357	...
Expenditures, fiscal year (mil. dol.)	270	110	85	75

1/ Excludes judicial and legal employment, not reported.

Source: Data from U.S. Bureau of the Census, cited in Statistical Abstract of the United States: 1990, p. 181.

Table 116.-- CRIMINAL JUSTICE POSITIONS AND EXPENDITURES: FISCAL YEAR 1980-1981 TO 1985-1986

[Annual totals exclude data for Attorney General and Public Defender, not available before 1984-1985]

Fiscal year and agency	Authorized positions (full-time equivalent 1/)	Expenditures ($1,000)
1980-1981	4,449.5	111,446
1981-1982	4,886.5	143,289
1982-1983	5,046.0	143,826
1983-1984	5,339.0	145,490
1984-1985	5,659.0	177,947
1985-1986	6,013.0	197,249
AGENCY: 1985-1986		
Police	2,901.0	98,263
Prosecutors	291.0	9,142
Judiciary	1,438.0	52,813
Corrections	1,287.0	34,762
Intake Service Centers	70.0	1,725
Paroling Authority	26.0	545
Public Defender 2/	98.0	3,233
Attorney General 2/	223.0	11,389

1/ Except for police, which are based on full-time positions only (sworn and non-sworn).

2/ Not included in all agency totals (see headnote).

Source: Hawaii State Department of the Attorney General, Hawaii Criminal Justice Data Center, Management and Administrative Statistics for the Criminal Justice System in the State of Hawaii (February 1989), p. 136.

Table 117.-- COURTS, JUDGES, MAGISTRATES, AND ATTORNEYS: 1988 TO 1990

[As of June 30]

Subject	1988	1989	1990
Federal judges and magistrates: 1/			
U.S. Bankruptcy Court	1	1	1
U.S. District Court	9	8	11
State justices and judges: 2/			
Supreme Court	5	5	5
Intermediate Court of Appeals	3	3	3
Circuit Courts 3/	24	24	24
Assigned to Family Court	1	1	1
District Courts 4/	30	32	32
Assigned to Family Court	8	8	10
Land Court	(5/)	(5/)	(5/)
Tax Appeal Court	(5/)	(5/)	(5/)
Attorneys licensed in Hawaii 6/	3,762	3,949	4,768

1/ Full-time and part-time. Excludes visiting judges and magistrates. In addition, one judge of the U.S. Court of Appeals maintains an office in Honolulu.

2/ Authorized full-time positions.

3/ Includes one judge assigned to the Family Court, a division of the Circuit Courts. In addition, Circuit Court judges may be assigned to hear matters before the Land Court and Tax Appeal Court, both of which are specialized courts separate from the Circuit Courts. There are four Circuit Courts, convened in five locations.

4/ Includes judges assigned to the Family Court, a division of the Circuit Courts. There are four District Courts, one in each of the four judicial circuits, convened in 22 locations.

5/ Caseload assigned to Circuit Court judges.

6/ Effective November 1, 1989, the number of licensed attorneys includes both active and inactive members of the Hawaii State Bar. Data for all years include judges. Earlier year totals for attorneys licensed in Hawaii are as follows: June 30, 1960, 432; June 30, 1970, 759; June 30, 1980, 2,202.

Source: Office of the Clerk, U.S. District Court, records; Office of the Administrative Director of the Courts, State Judiciary, records.

Table 118.-- UNITED STATES DISTRICT COURT CASES: 1986 TO 1989

[Years ended June 30]

Subject	1986	1987	1988	1989
Civil cases:				
Commenced (filings)	1,208	1,223	1,278	983
Terminated	994	939	1,391	1,471
Pending, end of period	2,238	2,522	2,408	1,920
Criminal cases: 1/				
Commenced (filings)	1,558	1,297	1,550	1,447
Terminated	1,697	1,555	1,879	1,237
Pending, end of period	1,161	889	549	749
Bankruptcy:				
Commenced (filings), total	782	982	935	855
Business	253	221	158	117
Nonbusiness	529	761	777	738
Terminated	586	742	1,326	1,079
Pending, end of period	2,063	2,303	1,910	1,686

1/ Excludes transfers.

Source: Annual Report of the Director of the Administrative Office of the United States Courts for 1986, 1987, and 1988, and Appendix I, Detailed Statistical Tables, Annual Report ... June 30, 1989.

Table 119.-- STATE JUDICIARY TERMINATIONS: 1985 TO 1990

Court and type of case	1985	1986	1987	1988	1989	1990
Supreme Court 1/	2,769	2,588	2,371	2,883	3,046	2,170
Civil cases	199	287	262	247	246	199
Criminal cases	241	312	254	287	427	266
Other proceedings	2,329	1,989	1,855	2,349	2,373	1,705
Intermediate Court of Appeals 2/	179	224	248	188	186	186
Civil cases	70	87	91	68	78	32
Criminal cases	28	42	49	60	59	56
Other proceedings	81	95	108	60	49	98
Circuit Courts proper ...	13,248	13,467	10,604	11,321	15,079	15,644
Civil cases	6,288	7,465	5,622	4,977	5,405	6,418
Criminal cases	3,252	2,717	2,305	2,752	2,951	3,567
Part I offenses	1,309	1,073	925	1,013	1,126	1,211
Part II offenses	1,943	1,644	1,380	1,739	1,825	2,356
Other proceedings	3,708	3,285	2,677	3,592	6,723	5,659
Family Courts	28,773	34,635	40,130	34,433	34,450	48,438
Civil cases	11,833	16,038	14,294	11,709	11,301	20,128
Criminal cases	149	163	650	309	2,395	3,027
Other proceedings	16,791	18,434	25,186	22,415	20,754	25,283
District Courts	900,934	899,473	807,513	771,287	892,480	897,864
Civil cases	19,509	20,354	20,402	21,643	24,179	21,968
Traffic cases	831,505	822,295	730,573	708,365	821,080	824,692
Other violations	18,101	26,842	24,885	9,284	10,565	10,984
Criminal cases	31,819	29,982	31,653	31,995	36,656	40,220
Part I offenses	4,777	4,326	4,567	5,208	5,186	5,778
Part II offenses	27,042	25,656	27,086	26,787	31,470	34,442

1/ Data exclude cases transferred to the Intermediate Court of Appeals: 142 in 1985, 135 in 1986, 137 in 1987, 120 in 1988, 138 in 1989, and 139 in 1990.

2/ Data exclude cases transferred back to the Supreme Court: 1 in 1987.

Source: Hawaii State Judiciary, Office of the Administrative Director of the Courts, records.

Table 120.-- STATE JUDICIARY CASES FILED, BY TYPE OF ACTION: 1987 TO 1989

[Years ended June 30]

Court and type of action	1987	1988	1989
Supreme Court, total	2,532	3,119	3,083
Primary cases	749	835	787
Appeals	694	778	727
Original proceedings	55	57	60
Supplemental proceedings	1,783	2,284	2,298
Intermediate Court of Appeals, total	241	180	188
Primary cases	134	120	140
Appeals	134	119	140
Supplemental proceedings	107	60	48
Circuit Courts Proper, total	13,326	13,588	13,720
Primary proceedings	12,717	13,052	13,295
Civil actions	5,987	5,732	5,524
Probate proceedings	1,830	1,884	1,606
Guardianship proceedings	449	524	418
Miscellaneous proceedings	1,519	1,386	1,984
Criminal actions	2,932	3,526	3,763
Part I offenses	1,084	1,197	1,364
Part II offenses	1,848	2,329	2,399
Supplemental proceedings	609	536	425
Family Courts, total	37,639	40,058	39,950
Primary proceedings, referrals	29,375	33,199	32,546
Marital actions, proceedings	7,379	7,484	6,085
Adoption proceedings	690	717	724
Parental proceedings	1,380	1,982	1,789
Miscellaneous proceedings	3,390	3,458	3,733
Criminal actions	963	2,185	3,453
Adults' referrals	2,666	3,417	3,612
Children's referrals	12,907	13,956	11,682
Supplemental proceedings	8,264	6,859	7,404
District Court, total	882,335	857,676	941,008
Civil	22,676	23,693	26,185
Regular civil	17,092	17,744	21,209
Small claims	5,584	5,949	4,976
Traffic	794,021	790,166	866,329
Moving - arrest and citation	173,332	125,294	148,038
Non-moving	112,032	90,821	98,248
Parking	508,657	574,051	620,043
Other violations	32,692	9,347	11,238
Criminal actions	32,946	34,470	37,256
Part I offenses	4,711	5,326	5,119
Part II offenses	28,235	29,144	32,137

Source follows next table.

Table 121.-- STATE JUDICIARY CASE TERMINATIONS, BY TYPE: 1987 TO 1989

[Years ended June 30]

Court and type of termination	1987	1988	1989
Supreme Court, total	2,508	3,003	3,184
Opinion filed	315	321	396
Dismissal motion granted	22	28	30
Withdrawn or discontinued	56	92	158
Transferred	137	120	138
Other disposition	1,978	2,442	2,316
Intermediate Court of Appeals, total	249	188	186
Opinion filed	135	120	134
Dismissal motion granted	2	-	-
Withdrawn or discontinued	2	5	3
Transferred	1	-	-
Other disposition	109	63	48
Circuit Courts Proper, total	10,604	11,321	15,079
No service	382	319	208
No answer	325	280	256
No statement of readiness	101	77	71
Dismissal: Notice of	742	795	915
Stip. for	3,316	2,755	2,941
By judge	486	646	631
Nonjury: Trial	212	248	291
Trial not completed	6	10	9
Jury: Verdict	302	333	353
Trial not completed	5	8	7
No trial held	1,442	1,580	1,983
Hearings: Contested	233	268	166
Uncontested	1,312	1,981	3,535
Others	1,740	2,021	3,713
Family Courts, total	40,130	34,433	34,450
Nolle prosequi	5	34	107
Dismissal	83	82	622
Nonjury: Trial	480	101	797
Trial not completed	2	2	488
Jury: Verdict	1	-	9
Trial not completed	-	-	1
No trial held	1,150	1,419	2,316
Hearings: Contested	3,050	4,077	3,924
Uncontested	19,711	13,911	13,088
Counseling service	6,629	6,962	6,692
Others	9,019	7,845	6,406

Continued on next page.

Table 121.-- STATE JUDICIARY CASE TERMINATIONS, BY TYPE: 1987 TO 1989 -- Con.

[Years ended June 30]

Court and type of termination	1987	1988	1989
District Court, total	807,513	771,287	892,480
Felonies	1,625	1,852	2,348
Stricken or discharged	235	229	409
By commitment to Grand Jury	41	17	33
By commitment to Circuit Court	1,349	1,606	1,906
Misdemeanors	30,028	30,143	34,308
By discharge or dismissal	8,019	8,078	9,845
By nolle prosequi	1,761	2,102	3,048
Stricken	1,582	1,616	2,065
By bail forfeiture	1,801	2,213	2,058
By commitment to Circuit Court	345	796	1,727
By conviction	16,520	15,338	15,565
Civil cases	20,402	21,643	24,179
By discontinuance or dismissal	7,257	8,239	9,532
By default or confession	12,483	12,752	13,641
By trial	550	559	913
By commitment to Circuit Court	112	93	93
Traffic and other violations	755,458	717,649	821,080
By discharge or dismissal	56,711	46,673	63,219
By nolle prosequi	16,159	15,509	14,919
Stricken	36,910	27,149	23,529
By bail forfeiture	523,303	537,903	609,701
By commitment to Circuit Court	153	219	250
By conviction	122,222	90,196	109,462

Source: *The Judiciary, State of Hawaii, Annual Report, July 1, 1986 to June 30, 1987, Statistical Supplement*, tables 1A, 1B, 7, 17, and 22; *The Judiciary, State of Hawaii, Annual Report, July 1, 1987 to June 30, 1988, Statistical Supplement*, tables 1A, 1B, 7, 17, and 22; *The Judiciary, State of Hawaii, Annual Report, July 1,1988 to June 30, 1989, Statistical Supplement*, tables 1A, 1B, 7, 17, and 22.

Table 122.-- INMATES PRESENT IN STATE CORRECTIONAL FACILITIES: ANNUAL AVERAGES, 1980 TO 1990

[Mean head count for fiscal years ended June 30]

Year	Total 1/	Adult facilities 2/			Juvenile facilities 3/	
		Sentenced felons	Sentenced jail 4/	Not sentenced	Boys	Girls
1980	817	480	74	177	76	10
1981	952	561	82	210	88	11
1982	1,155	681	86	295	85	8
1983	1,402	812	120	391	73	6
1984	1,652	974	166	435	71	6
1985	1,898	1,223	204	392	72	7
1986	2,009	1,331	240	348	78	12
1987	2,094	1,429	202	374	79	10
1988	2,194	1,414	219	484	63	14
1989	2,203	1,428	206	494	56	9
1990	2,323	1,482	212	629	53	6

1/ Includes "other jurisdiction" population, not separately shown.

2/ As of 1990, includes nine facilities: Oahu, Hawaii, Kauai, and Maui Community Correctional Centers, Kulani Correctional Facility, Halawa High Security Facility, Halawa Medium Security Facility, Women's Community Correctional Center, and Waiawa Correctional Facility.

3/ Hawaii Youth Correctional Facility.

4/ Includes felon probationers serving jail terms under one year.

Source: Hawaii State Department of Public Safety, records.

Table 123.-- MEDIAN AGES AND AVERAGE SENTENCES OF SENTENCED FELON POPULATION: 1980 TO 1990

[Years ended June 30. These data cover only sentenced felons under the jurisdiction of the State's correctional facilities, in hospitals, in mainland facilities, and on community release status. Parolees are not included. Average sentence calculations include life with parole sentences]

Year	Median age (years) 1/		Average sentences (months)				
			Felons admitted		Felons released		
	At admission	Currently as of June 30	Minimum	Maximum	Minimum	Maximum	Time served
1980	26.1	25.3	69.4	151.3	53.7	113.6	46.4
1981	27.0	27.8	40.7	173.5	55.7	124.9	47.4
1982	26.8	27.3	38.8	135.8	58.8	131.6	52.2
1983	27.5	29.2	49.2	127.2	40.5	98.5	47.5
1984	27.9	30.3	53.8	142.2	39.7	112.8	46.2
1985	29.3	28.2	47.5	145.7	53.0	126.0	42.7
1986	30.4	29.4	33.3	133.5	54.1	122.7	39.8
1987	27.0	31.0	45.9	190.8	42.5	132.4	38.0
1988	29.0	29.0	38.7	122.9	61.1	126.9	39.4
1989	30.1	28.7	44.8	132.6	73.5	109.2	36.6
1990	30.2	30.7	(NA)	(NA)	(NA)	(NA)	33.7

NA Not available.

1/ For sentenced felon population on June 30. Due to a change in computerized data systems, data for 1983 and later years are not directly comparable with figures for previous years.

Source: Hawaii State Department of Public Safety, records.

Table 124.-- HAWAII PAROLING AUTHORITY STATISTICAL SUMMARY: 1988 AND 1989

[Years ended June 30]

Item	1988	1989
Number of parolees, June 30 1/	1,076	1,217
Parolees in Hawaii	718	820
Parolees outside Hawaii	192	219
Absconders and suspensions (cumulative)	166	178
Minimum imprisonment terms fixed	1,379	1,027
Number of persons for whom terms fixed	477	722
Persons considered for parole	538	605
Paroles tentatively granted	451	463
Paroles denied	87	142
Persons reconsidered for minimum terms previously set	333	436
Terms reset	14	28
Terms reset/parole granted	271	371
Terms undisturbed	42	29
Deferred reconsideration	6	18
Parole violation hearings	147	231
Parole revocations	139	170
Continued on parole	7	12
Deferred decision/hearing	1	25
Pardon investigations	11	21
Persons pardoned	10	18
Persons whose paroles were suspended because their whereabouts unknown	65	88
Discharges	130	135
Discharged from parole	88	94
Final discharge	36	33
Deceased	1	1
Administrative 2/	5	6

1/ In addition, provided courtesy supervision to 32 interstate cases on June 30, 1988 and 46 on June 30, 1989.

2/ Persons convicted prior to 1970, age 65 or older and classified absconder or suspended.

Source: Hawaii State Department of Corrections, 1989 Annual Report, Hawaii Paroling Authority.

Section 5

GEOGRAPHY AND ENVIRONMENT

This section relates to land and water areas, physical geography, climate, air and water quality, noise, and other geographic and environmental measurements of Hawaii. Most statistics on land use and ownership, however, appear in Section 6.

The State consists of eight major islands and 124 minor islands with a total land area of 6,425 square miles and a general coastline of 750 miles. Honolulu is 214 miles from Hilo, 1,367 miles from Kure Atoll (the westernmost end of the State), 2,397 miles from San Francisco, and 4,829 miles from Washington, D.C. The highest peak in the State is Mauna Kea, 13,796 feet above sea level; the longest stream is Kaukonahua Stream, Oahu, 33 miles in length; the most extensive lake or similar body is Kawainui Marsh, 1,000 acres; and the highest named waterfall is Kahiwa, Molokai, a 1,750-foot cascade. Various measures of air pollution, such as suspended particulate matter, indicate that Honolulu is one of the cleanest cities in the nation. There is also relatively little water pollution: the 104 major beaches and streams surveyed in 1989 were found to have enterococci levels per 100 ml. ranging from 0.5 to 150.3, and four out of five were within EPA standards. More than 1,200 species, subspecies, and varieties of native fauna and flora have been proposed or accepted for inclusion on lists of endangered, threatened, or extinct organisms.

Climatically, Hawaii is marked by remarkably balmy temperatures and wide variations in rainfall. The all-time temperature range at Honolulu International Airport, for example, was from 53° to 94°F. Average precipitation, however, ranges from less than nine inches at Kawaihae to 444 inches atop Waialeale. The largest volcanic eruption in Island history (begun in 1983) had produced more than 1.6 billion cubic yards of lava by August 1990. The worst earthquake (1868) attained 7.5 on the Richter scale, the highest tsunami wave (1946) reached 56 feet, and the most destructive hurricane (Iwa, 1982) gusted to 117 miles per hour. Water withdrawn for use in 1985 averaged 1.4 billion gallons per day, compared with 2.9 billion in 1980 and 2.8 billion in 1975. Among 31 neighborhoods on Oahu, median noise levels in 1981-1982 ranged from 37 decibels (in Mililani) to 57 decibels (in Pawaa).

Important sources of data include the U.S. Geological Survey, National Ocean Survey, National Weather Service, U.S. Bureau of the Census Geography Division, the Division of Water and Land Development of the State Department of Land and Natural Resources, the State Department of Health, and the University of Hawaii Institute of Geophysics. Detailed information is given in Atlas of Hawaii, 2nd edition, published by the University of Hawaii Press in 1983. National data are reported in Statistical Abstract of the United States: 1990, Section 6.

Table 125.-- GREAT CIRCLE DISTANCES BETWEEN SPECIFIED PLACES

Places	Statute miles	Nautical miles	Kilo-meters
DISTANCES FROM HONOLULU INTERNATIONAL AIRPORT			
Hawaiian Islands locations:			
Hilo, Hawaii	214	186	344
Kailua, Kona, Hawaii	168	146	270
Kahului, Maui	98	85	158
Lanai Airport	72	63	116
Molokai Airport	54	47	87
Lihue, Kauai	103	90	166
Puuwai, Niihau	152	132	245
Nihoa	283	246	455
Necker Island	520	452	837
French Frigate Shoals	556	483	895
Gardner Pinnacles	688	598	1,107
Maro Reef	851	739	1,369
Laysan Island	936	813	1,506
Lisianski Island	1,065	925	1,714
Pearl and Hermes Atoll	1,208	1,050	1,944
Midway Islands	1,309	1,137	2,106
Kure Atoll	1,367	1,188	2,200
Other Pacific locations:			
Apra Harbor, Guam	3,806	3,307	6,124
Auckland, New Zealand	4,393	3,817	7,068
Hong Kong	5,541	4,815	8,915
Johnston Atoll	820	713	1,319
Kingman Reef	1,073	932	1,726
Kiritimati (Christmas Island), Kiribati	1,344	1,168	2,163
Majuro, Marshall Islands	2,271	1,973	3,654
Manila, Philippines	5,293	4,599	8,516
Nuku Hiva, Marquesas Islands	2,400	2,086	3,864
Pago Pago, American Samoa	2,606	2,265	4,193
Palmyra Atoll	1,101	957	1,772
Papeete, Tahiti	2,741	2,382	4,410
Suva, Fiji	3,159	2,745	5,083
Sydney (Port Jackson), Australia	5,070	4,406	8,158
Tokyo, Japan	3,847	3,343	6,190
Wake Island	2,294	1,993	3,691
North and South American locations:			
Anchorage, Alaska	2,781	2,417	4,475
Cape Horn, Chile	7,457	6,480	11,998

Continued on next page.

Table 125.-- GREAT CIRCLE DISTANCES BETWEEN SPECIFIED PLACES -- Con.

Places	Statute miles	Nautical miles	Kilo-meters
DISTANCES FROM HONOLULU INT. AIRPORT--Con.			
North and South American locations, con.:			
Chicago, Illinois	4,179	3,631	6,724
Cristobal, Canal Zone	5,214	4,531	8,389
Los Angeles, California	2,557	2,222	4,114
Miami, Florida	4,856	4,220	7,813
New York, New York	4,959	4,309	7,979
Portland, Oregon	2,595	2,255	4,175
San Diego, California	2,610	2,268	4,199
San Francisco, California	2,397	2,083	3,857
Seattle, Washington	2,679	2,328	4,311
Vancouver, B.C.	2,709	2,354	4,359
Tijuana, Mexico	2,616	2,273	4,209
Washington, D.C.	4,829	4,196	7,770
London, England	7,226	6,279	11,627
Bombay, India	8,010	6,960	12,888
Ghanzi, Botswana 1/	12,417	10,790	19,979
Equator, due south of Honolulu	1,470	1,277	2,367
North Pole	4,740	4,119	7,631
OTHER DISTANCES			
Hilo to --			
Los Angeles, California	2,447	2,126	3,937
San Francisco, California	2,315	2,012	3,725
Kure Atoll to --			
Cape Kumukahi, Puna, Hawaii 2/	1,523	1,323	2,451
Log Point, Elliot Key, Florida 3/	5,852	5,085	9,416
Tokyo, Japan	2,486	2,160	4,000
West Quoddy Head, Maine	5,788	5,030	9,313

1/ Ghanzi, Botswana, is Honolulu's antipode, that is, the point precisely opposite to it on the globe.

2/ Cape Kumukahi and Kure Atoll are the points farthest apart in the Hawaiian Archipelago and State of Hawaii.

3/ Log Point and Kure Atoll are the points farthest apart in the 50 states.

Source: U. S. Department of the Interior, Geological Survey, Elevations and Distances in the United States (1980), pp. 22-23, and records.

Table 126.-- TIME DIFFERENTIALS BETWEEN HONOLULU AND SELECTED CITIES: 1982-1990

City	June		December	
	Day	Hour	Day	Hour
Honolulu, Hawaii	Same	12:00 N	Same	12:00 N
Papeete, Tahiti	Same	12:00 N	Same	12:00 N
Anchorage, Alaska	Same	2:00 PM	Same	1:00 PM
San Francisco, California	Same	3:00 PM	Same	2:00 PM
Denver, Colorado	Same	4:00 PM	Same	3:00 PM
Mexico City, Mexico	Same	4:00 PM	Same	4:00 PM
Houston, Texas	Same	5:00 PM	Same	4:00 PM
Chicago, Illinois	Same	5:00 PM	Same	4:00 PM
Atlanta, Georgia	Same	6:00 PM	Same	5:00 PM
Toronto, Canada	Same	6:00 PM	Same	5:00 PM
Washington, D.C.	Same	6:00 PM	Same	5:00 PM
New York, N.Y.	Same	6:00 PM	Same	5:00 PM
Rio de Janeiro, Brazil	Same	7:00 PM	Same	7:00 PM
London, United Kingdom	Same	11:00 PM	Same	10:00 PM
Bonn, West Germany	Same	12:00 Mid.	Same	11:00 PM
Vienna, Austria	Same	11:00 PM	Same	11:00 PM
Cairo, Egypt	Same	12:00 Mid.	Same	12:00 Mid.
Moscow, Soviet Union	Next	2:00 AM	Next	1:00 AM
Bombay, India	Next	3:30 AM	Next	3:30 AM
Singapore, Singapore	Next	6:00 AM	Next	6:00 AM
Hong Kong, Hong Kong	Next	7:00 AM	Next	6:00 AM
Manila, Philippines	Next	6:00 AM	Next	6:00 AM
Shanghai, China	Next	7:00 AM	Next	6:00 AM
Seoul, South Korea	Next	7:00 AM	Next	7:00 AM
Tokyo, Japan	Next	7:00 AM	Next	7:00 AM
Agana, Guam	Next	9:00 AM	Next	8:00 AM
Sydney, Australia	Next	8:00 AM	Next	9:00 AM
Auckland, New Zealand	Next	10:00 AM	Next	11:00 AM
Suva, Fiji	Next	10:00 AM	Next	10:00 AM
Pago Pago, American Samoa	Same	11:00 AM	Same	11:00 AM

Source: Doris Chase Doane, Time Changes in the USA, Rev. Ed. (1985) and Time Changes in the World, Rev. Ed. (1982); The World Almanac 1990, pp. 270-271; GTE Hawaiian Tel, Oahu Telephone Directory, February 1, 1990, p. 37A.

Table 127.-- LATITUDES AND LONGITUDES OF SELECTED PLACES

Island and place	Latitude (North)	Longitude (West)
Hawaii:		
Hilo (International Airport)	19°43'	155°04'
Cape Kumukahi	19°31'	154°49'
Ka Lae	18°56'	155°41'
Keahole Point	19°44'	156°04'
Upolu Point	20°16'	155°51'
Geographic center of State (off Maui).	20°15'	156°20'
Maui:		
Wailuku	20°53'	156°30'
Kahului (Airport)	20°54'	156°26'
Hana	20°45'	155°59'
Cape Hanamanioa	20°35'	156°25'
Lahaina	20°52'	156°41'
Kahoolawe:		
Puu Moaulanui	20°34'	156°34'
Lanai:		
Airport	20°48'	156°57'
Molokai:		
Kaunakakai	21°05'	157°02'
Laau Point	21°06'	157°19'
Cape Halawa	21°10'	156°43'
Oahu:		
Honolulu: International Airport	21°20'	157°55'
Aloha Tower	21°19'	157°52'
Kaena Point	21°35'	158°17'
Kahuku Point	21°43'	157°59'
Makapuu Point	21°19'	157°39'
Diamond Head	21°16'	157°49'
Kauai:		
Lihue (Kauai Airport)	21°59'	159°21'
Mana	22°02'	159°46'
Kilauea Point	22°14'	159°24'
Niihau:		
Puuwai	21°54'	160°12'
Kure Atoll	28°25'	178°22'

Source: U.S. Board on Geographic Names, *Gazetteer No. 24, Hawaiian Islands* (1956); U.S. Geological Survey, *Elevations and Distances in the United States* (1980), pp. 17 and 22-23; U.S. Department of Commerce, National Climatic Data Center, *Local Climatological Data, Annual Summary with Comparative Data, 1984* for Hilo, Kahului, Honolulu, and Lihue; Bernice P. Bishop Museum, records; Hawaii State Department of Accounting and General Services, Survey Division, records.

Table 128.-- WIDTHS AND DEPTHS OF CHANNELS

Channel 1/	Width 2/		Depth 3/	
	Statute miles	Kilometers	Feet	Meters
Alenuihaha (Hawaii-Maui)	29.6	47.6	6,810	2,076
Alalakeiki (Kahoolawe-Maui)	6.7	10.8	822	251
Kealaikahiki (Kahoolawe-Lanai)	17.8	28.6	1,086	331
Auau (Lanai-Maui)	9.5	15.3	252	77
Kalohi (Lanai-Molokai)	9.2	14.8	540	165
Pailolo (Maui-Molokai)	8.8	14.2	846	258
Kaiwi (Molokai-Oahu)	25.8	41.5	2,202	671
Kauai (Oahu-Kauai)	72.1	116.0	10,890	3,319
Kaulakahi (Kauai-Niihau)	17.2	27.7	3,570	1,088
Niihau-Kaula	21.5	34.6	5,364	1,635
Niihau-Nihoa	133.9	215.5	14,550	4,435
Nihoa-Necker I.	179.6	289.0	12,600	3,840
Necker I.-French Frigate Shoals	100.3	161.4	12,780	3,895
French Frigate Shoals-Gardner Pinnacles ..	137.0	220.5	11,448	3,489
Gardner Pinnacles-Maro Reef	155.5	250.3	12,300	3,749
Maro Reef-Laysan I.	65.9	106.1	8,280	2,524
Laysan I.-Lisianski I.	137.4	221.1	16,830	5,130
Lisianski I.-Pearl and Hermes Atoll	162.6	261.7	17,400	5,304
Pearl and Hermes Atoll-Midway Islands	86.9	139.9	15,840	4,828
Midway Islands-Kure Atoll	57.1	91.9	12,960	3,950

1/ Listed in geographic order, from east to west. The channels between major islands were measured between the following points:
Alenuihaha: Upolu Pt., Hawaii, to Puhilele Pt., Maui;
Alalakeiki: Lae o ka Ule, Kahoolawe, to Nukuele Pt., Maui;
Kealaikahiki: Makaalae, Kahoolawe, to Kamaiki Pt., Lanai;
Auau: Kikoa Pt., Lanai, to Lahaina, Maui;
Kalohi: Wahie Pt., Lanai, to Kamalo, Molokai;
Pailolo: Lipoa Pt., Maui, to Pohakuloa, Molokai;
Kaiwi: Ilio Pt., Molokai, to Makapuu Pt., Oahu;
Kauai: Kaena Pt., Oahu, to Kamilo Pt., Kauai;
Kaulakahi: Mana Pt., Kauai, to Kaunuopou, Niihau.

2/ Width measured in statute miles between designated points on National Ocean Survey and Coast and Geodetic Survey charts. Width in kilometers calculated from miles (1 mile = 1.60934 km.).

3/ Depths given are the deepest soundings noted at or near the line joining the two designated points, on National Ocean Survey and Coast and Geodetic Survey charts. Depths measured in fathoms and converted to feet and meters (1 fathom = 6 feet = 1.8288 meters).

Source: Compiled by Lee S. Motteler, Geography and Map Division, Bernice P. Bishop Museum, in November 1980.

Table 129.-- GENERAL COASTLINE AND TIDAL SHORELINE OF COUNTIES AND ISLANDS

County and island	General coastline 1/		Tidal shoreline 2/	
	Statute miles	Kilometers 3/	Statute miles	Kilometers 3/
State total	750	1,207	1,052	1,693
Counties:				
Hawaii	266	428	313	504
Maui, including Kalawao	210	338	343	552
Honolulu	137	220	234	377
Kauai	137	220	162	261
Islands: 4/				
Hawaii	266	428	313	504
Maui	120	193	149	240
Kahoolawe	29	47	36	58
Lanai	47	76	52	84
Molokai	88	142	106	171
Oahu	112	180	209	336
Kauai	90	145	110	177
Niihau	45	72	50	80
Kaula	2	3	2	3
Northwestern Hawaiian Islands 5/	25	40	25	40
Nihoa	3	5	3	5
Necker Island	2	3	2	3
French Frigate Shoals	6	10	6	10
Laysan Island	6	10	6	10
Lisianski Island	3	5	3	5
Kure Atoll	5	8	5	8

1/ Figures are lengths of general outline of seacoast. Data for the four Islands of Maui County are not consistent with the reported county total.

2/ Shoreline of outer coast, offshore islands, bays, rivers, and creeks is included to the head of tidewater or to a point where tidal waters narrow to a width of 100 feet.

3/ Derived from data expressed in statute miles; independently rounded and accordingly may not add exactly to indicated totals and subtotals. 1 mi. = 1.609 km.

4/ Data are not available for five minor islands: Molokini, Lehua, Gardner Pinnacles, Maro Reef, and Pearl and Hermes Atoll.

5/ Excludes the Midway Islands, which are part of the Hawaiian Archipelago but not legally part of the State of Hawaii. Midway has a general coastline of 20 miles and a tidal shoreline of 33 miles.

Source: U.S. Department of Commerce, National Ocean Survey, The Coastline of the United States (1975) and records.

Table 130.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1989

[See maps on pages 6 and 7]

County or island	Square miles Total	 Land 2/	 Inland water 3/
State total	6,470.8	6,425.2	45.6
Counties: 4/			
Hawaii	4,035.2	4,034.2	1.0
Maui	1,171.0	1,161.6	9.4
Kalawao	14.3	13.3	1.0
Honolulu 5/	620.5	596.3	24.2
Kauai 5/	629.8	619.8	10.0
Islands: 4/			
Hawaii	4,035.2	4,034.2	1.0
Maui 6/	734.5	728.6	5.9
Kahoolawe	45.9	45.0	0.9
Lanai	141.2	140.4	0.8
Molokai	263.7	260.9	2.8
Oahu	617.6	593.6	24.0
Kauai	558.2	549.4	8.8
Niihau 7/	71.1	70.0	1.1
Kaula	0.4	0.4	-
Northwestern Hawaiian Islands 8/	2.910	2.690	0.220
Nihoa	0.238	0.238	-
Necker Island	0.105	0.105	-
French Frigate Shoals	0.081	0.081	-
Gardner Pinnacles	0.011	0.011	-
Maro Reef	Awash	Awash	Awash
Laysan Island	1.454	1.234	0.220
Lisianski Island	0.586	0.586	-
Pearl and Hermes Atoll	0.106	0.106	-
Kure Atoll	0.329	0.329	-

Continued on next page.

Table 130.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1989 -- Con.

County or island	Square kilometers 1/		Acres 1/	
	Total	Land 2/	Total	Land 2/
State total	16,759.3	16,641.2	4,141,312	4,112,128
Counties: 4/				
Hawaii	10,451.1	10,448.5	2,582,528	2,581,888
Maui	3,032.9	3,008.5	749,440	743,424
Kalawao	37.0	34.4	9,152	8,512
Honolulu 5/	1,607.1	1,544.4	397,120	381,632
Kauai 5/	1,631.2	1,605.3	403,072	396,672
Islands: 4/				
Hawaii	10,451.1	10,448.5	2,582,528	2,581,888
Maui 6/	1,902.3	1,887.1	470,080	466,304
Kahoolawe	118.9	116.5	29,376	28,800
Lanai	365.7	363.6	90,368	89,856
Molokai	683.0	675.7	168,768	166,976
Oahu	1,599.6	1,537.4	395,264	379,904
Kauai	1,445.7	1,422.9	357,248	351,616
Niihau 7/	184.1	181.3	45,504	44,800
Kaula	1.0	1.0	256	256
Northwestern Hawaiian Islands 8/	7.5	7.0	1,862	1,722
Nihoa	0.6	0.6	152	152
Necker Island	0.3	0.3	67	67
French Frigate Shoals	0.2	0.2	52	52
Gardner Pinnacles	0.0	0.0	7	7
Maro Reef	Awash	Awash	Awash	Awash
Laysan Island	3.8	3.2	931	790
Lisianski Island	1.5	1.5	375	375
Pearl and Hermes Atoll	0.3	0.3	68	68
Kure Atoll	0.9	0.9	211	211

1/ Areas in square kilometers and acres were calculated directly from the figures shown for square miles; these equivalents were independently rounded, and hence may not add exactly to the indicated totals and subtotals. 1 square mile = 640 acres = 2.58999 square kilometers.

2/ Dry land and land temporarily or partially covered by water, as marshland, swamps, etc.; streams and canals under one-eighth statute mile wide; and lakes, reservoirs, and ponds under 40 acres of area.

Continued on next page.

Table 130.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1989 -- Con.

3/ Permanent inland water surface, such as lakes, reservoirs, and ponds having 40 acres or more of area; streams, sloughs, estuaries, and canals one-eighth statute mile or more in width; deeply indented embayments and sounds, and other coastal waters behind or sheltered by headlands or islands separated by less than 1 nautical mile of water, and islands having less than 40 acres of area.

4/ Because of rounding, island figures may not add to county figures.

5/ Reflects inclusion of Kaula in the County of Kauai rather than in the City and County of Honolulu. Kaula was transferred to the County of Kauai by Act 245, S.L.H. 1988, approved June 9, 1988.

6/ Molokini, offshore of Maui, not measured; other sources give the area of Molokini as 18.6 acres (0.03 square miles or 0.075 square kilometers).

7/ Includes Lehua, elsewhere reported as 243 acres (0.38 square miles or 0.98 square kilometers).

8/ Exclusive of the Midway Islands, which are part of the Hawaiian Archipelago but not legally part of the State of Hawaii.

Source: Unpublished data supplied by the Geography Division, U.S. Bureau of the Census, May 5, 1983; cited in the Hawaii State Department of Planning and Economic Development, Remeasurements of the Area of Hawaii, 1982 (Statistical Memorandum 83-6, May 18, 1983).

Table 131.-- LAND AND WATER AREA WITHIN THE FISHERY CONSERVATION ZONE

[Land and water area within the 200 nautical mile Fishery Conservation Zone surrounding the Hawaiian Archipelago]

Unit	Total area	Land area	Water area
Square nautical miles	634,023	4,852	629,171
Square statute miles	839,623	6,425	837,198
Square kilometers	2,174,626	16,641	2,147,985

Source: Marine Surveys and Maps, National Ocean Survey, National Oceanic and Atmospheric Administration, information supplied September 15, 1978.

Table 132.-- MAJOR AND MINOR ISLANDS IN THE HAWAIIAN ARCHIPELAGO

Classification	Number of islands		Land area (square miles)
	Total	Inhabited, 1980 1/	
All named islands	137	15	6,427.0
Major islands	8	7	6,419.4
Named minor islands 2/	129	8	7.6
Offshore of major islands	96	4	2.6
Northwestern Hawaiian Islands 3/	33	4	4.9
Part of State	28	3	2.9
Not part of State (Midway Islands)	5	1	2.0

1/ For populations, see present volume, table 4.
2/ For individual data, see DPED Report GN-6, pp. 3-7.
3/ The 33 islets are in 10 clusters.
Source: Hawaii State Department of Planning and Economic Development, Geographic Names Approved, Second Quarter 1969 (Report GN-6, July 8, 1969), p. 8; Data Book 1986, table 152.

Table 133.-- AREA AND DEPTH OF SELECTED CRATERS

Island and crater	Area (acres)	Maximum depth (feet)
Hawaii:		
Kilauea Caldera	2,319	476
Mokuaweoweo Crater 1/	2,221	572
Maui:		
Haleakala Crater 2/	12,575	3,028
Oahu:		
Diamond Head Crater	255	562
Koko Crater	133	968
Punchbowl Crater	62	140

1/ Data exclude North and South Pits.
2/ Data exclude Koolau and Kaupo Gaps.
Source: Measured from U.S. Geological Survey maps by DBED.

Table 134.-- ELEVATIONS OF MAJOR SUMMITS

[Elevation of the highest point on each island
and other important peaks]

Island and summit	Feet	Meters
Hawaii:		
Mauna Kea 1/	13,796	4,205
Mauna Loa 2/	13,679	4,169
Hualalai	8,271	2,521
Kaumu o Kaleihoohie	5,480	1,670
Kilauea (Uwekahuna)	4,093	1,248
Kilauea (Halemaumau Rim)	3,660	1,116
Kahoolawe:		
Puu Moaulanui	1,483	452
Puu Moaulaiki	1,434	437
Molokini	160	49
Maui:		
Haleakala (Red Hill)	10,023	3,055
Haleakala (Kaupo Gap)	8,201	2,500
Puu Kukui	5,788	1,764
Iao Needle	2,250	686
Lanai:		
Lanaihale	3,366	1,026
Molokai:		
Kamakou	4,961	1,512
Olokui	4,606	1,404
Kaunuohua	4,535	1,382
Kalaupapa Lookout	1,600	488
Mauna Loa (Kukui)	1,430	436
Oahu:		
Kaala	4,003	1,220
Puu Kalena	3,504	1,068
Konahuanui	3,150	960
Tantalus	2,013	614
Olomana	1,643	501
Koko Crater (Kohelepelepe)	1,208	368
Nuuanu Pali Lookout	1,186	361
Diamond Head	760	232
Koko Head	642	196
Punchbowl	500	152

Continued on next page.

Table 134.-- ELEVATIONS OF MAJOR SUMMITS -- Con.

Island and summit	Feet	Meters
Kauai:		
Kawaikini	5,243	1,598
Waialeale	5,148	1,569
Namolokama Mountain	4,421	1,348
Kalalau Lookout	4,120	1,256
Haupu	2,297	700
Sleeping Giant (Nonou)	1,241	378
Niihau:		
Paniau	1,250	381
Lehua	699	213
Kaula	548	167
Nihoa:		
Millers Peak	903	275
Necker Island:		
Summit Hill	276	84
French Frigate Shoals:		
La Perouse Pinnacles	120	37
Gardner Pinnacles	190	58
Maro Reef	Awash	Awash
Laysan Island	40	12
Lisianski Island	40	12
Pearl and Hermes Atoll	10	3
Midway Islands	12	4
Kure Atoll	20	6

1/ According to the 1990 Guinness Book of World Records (p. 84), "The world's tallest mountain measured from its submarine base (3,280 fathoms) in the Hawaiian Trough to peak is Mauna Kea ... with a combined height of 33,476 ft, of which 13,796 ft are above sea level."

2/ Guinness (p. 84) describes Mauna Loa as having "dimensions, but not height, [which] exceed those of Mt Everest and K2 .... The axes of its elliptical base, 16,322 ft below sea level, have been estimated at 74 mi and 53 mi."

Source: Hawaii State Department of Accounting and General Services, Survey Division, data provided May 21, 1990; U.S. National Cartographic Information Center, data provided October 11, 1978; U.S. Geological Survey topographic maps, 1981-1984; Hawaiian Government Survey Reg. Maps No. 1075 and 1276 (for Nihoa and Molokini); U.S.S. Tanager survey, 1923 (for Necker Island, French Frigate Shoals, Laysan, Lisianski, Pearl and Hermes Atoll and Kure Atoll).

Table 135-- LENGTH AND WIDTH OF SELECTED BEACHES

[Includes the longest white sand beach on each inhabited island, plus other important beaches]

Island and beach	Length (miles)	Width 1/ (feet)
Hawaii:		
Hapuna	0.5+	200+
Maui:		
Spreckelsville	2+	(NA)
Kaanapali	1.5	60-80
Lanai:		
Polihua	1.5+	(NA)
Molokai:		
Papohaku	2+	300
Oahu:		
Waikiki	2	(NA)
Waimanalo	3.5-4.5	(NA)
Sunset	2-3+	200
Kauai:		
Polihale to Kekaha	15	300
Polihale	3	300
Niihau:		
Keawanui	3.5	175

NA Not available.

1/ Summer averages. Many beaches in Hawaii are seasonally reduced in width by winter storms.

Source: Hawaii State Department of Planning and Economic Development, Hawaii's Shoreline (1965), pp. 33, 47, 55, 62, 68, and 100; John R. K. Clark, Beaches of the Big Island (1985), p. 132, The Beaches of Maui County (1980), pp. 10, 62, 84-85, and 114, The Beaches of O'ahu (1977), pp. 45, 125, and 177, and Beaches of Kaua'i and Ni'ihau (1990), pp. 48-49 and 84.

Table 136.-- MAJOR STREAMS, BY ISLANDS: 1990

Island	Feature or stream	Length or ave. discharge
Longest water feature (miles):		
Hawaii	Wailuku River	32.0
Maui	Kalialinui-Waiale Gulch	18.0
Kahoolawe	Ahupu Gulch	4.0
Lanai	Maunalei-Waialala Gulch	12.9
Molokai	Wailau-Pulena Stream	6.5
Oahu	Kaukonahua Stream (So. Fork)	33.0
Kauai	Waimea River-Poomau Stream	19.5
Niihau	Keanaulii-Puniopo Valley	5.9
Largest perennial stream (miles): 1/		
Hawaii	Wailuku River	22.7
Maui	Palikea Stream	7.8
Molokai	Wailau-Pulena Stream	6.5
Oahu	Kaukonahua Stream	30.0
Kauai	Waimea River	19.7
Streams with greatest average discharge (million gal./day):		
Hawaii	Wailuku River	250
Maui	Iao Stream	45
Molokai	Wailau Stream	30
Oahu	Waikele Stream	25
Kauai	Hanalei River	140

1/ Estimated on basis of drainage area rather than stream runoff.
Other major streams include Wailoa River, Hawaii (1/2-mile long); Honokohau Stream (9.4 miles long) and Iao Stream (5), both on Maui; Halawa Stream (6.4), Waikolu Stream (4.7), and Pelekunu (2.3), all on Molokai; Waikele Stream (15.3), Kipapa Stream (12.8), Waiakakalaua Stream (11.8), Nuuanu Stream (4), and Ala Wai Canal (1.9), all on Oahu; and the Makaweli River (15.1), Wainiha River (13.8), Hanapepe River (13.3), and Wailua River (11.8), all on Kauai.

Source: Longest water feature from U.S. Geological Survey, records; other data from Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 137.-- LAKES AND LAKE-LIKE WATERS, BY ISLANDS: 1990

Island and lake	Type	Elevation (feet)	Area 1/ (acres)	Maximum depth (feet)
Hawaii:				
Aimakapa	Coastal pool .	(SL)	15	(NA)
Green Lake	Lake	3	2	20
Lake Waiau 2/	Lake	13,020	2	10
Waiakea Pond	Tidal pond ...	(SL)	27	7
Maui:				
Kanaha Pond	Marsh	(SL)	41	3
Kealia Pond	Marsh	(SL)	500	(NA)
Waieleele	Pond	6,690	0.5	21
Molokai:				
Kauhako	Pool	(SL)	0.9	814
Kualapuu Reservoir ..	Reservoir	821	100	50
Meyer Lake	Impoundment ..	2,021	6-10	5
Oahu:				
Ho'omaluhia	Reservoir	202	90	90
Kaelepulu Pond	Lake	(SL)	198	(NA)
Kawainui Marsh	Marsh	(SL)	1,000	(NA)
Wahiawa Reservoir ...	Reservoir	842	302	85
Kauai:				
Nomilu Fishpond	Pond	(SL)	20	66
Waita Reservoir	Reservoir	241	424	23
Niihau:				
Halalii Lake	Playa	(SL)	841-865	(NA)
Halulu Lake	Playa	(SL)	182-371	(NA)
Laysan:				
Laysan Lagoon	Closed lagoon	(SL)	161	16

NA Not available.

SL Sea level.

1/ Ranges shown for Meyer Lake, Halalii Lake, and Halulu Lake reflect differences in estimates between sources.

2/ Highest lake in the State and third highest in the United States.

Continued on next page.

Table 137.-- LAKES AND LAKE-LIKE WATERS, BY ISLANDS: 1990 - Con.

Source: J.A. Maciolek, *Lakes and Lake-like Waters of the Hawaiian Archipelago* (Bernice P. Bishop Museum, Occasional Papers, Vol. XXV, No. 1, April 30, 1982); Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, May 23, 1990; Hawaii State Department of Planning and Economic Development, *Resource Management Plan for Kawainui Marsh* (March 1983); William H. Meyer, U.S. Fish and Wildlife Service, transmittal letter (to DPED, Coastal Zone Management Program), for *Kealia Pond National Wildlife Refuge, Maui, Hawaii, Final EIS* (August 1981).

Table 138.-- MAJOR NAMED WATERFALLS, BY ISLANDS: 1990

Island	Waterfall	Height (feet)		Horizontal distance (feet)
		Sheer drop	Cascade	
Hawaii ..	Kaluahine	...	620	400
	Akaka	442	...	...
Maui	Honokohau	...	1,120	500
Molokai .	Kahiwa	...	1,750	1,000
	Papalaua	...	1,200	500
Oahu	Kaliuwaa (Sacred)	1/ 80	1,520	3,000
Kauai ...	Waipoo (2 falls)	...	800	600
	Awini	...	480	500

1/ Refers to northernmost fall of a cascade of six falls.
Source: U.S. Geological Survey, records; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 139.-- MISCELLANEOUS GEOGRAPHIC STATISTICS, BY ISLANDS

Island	Extreme length (miles)	Extreme width (miles)	Miles of sea cliffs with heights 1,000 ft. or more 1/	Miles from coast of most remote point	Percent of area within 5 miles of coast
The State ..	...	...	33	28.5	48.6
Hawaii	93	76	4	28.5	30.0
Maui	48	26	-	10.6	76.1
Kahoolawe	11	6	-	2.4	100.0
Lanai	18	13	1	5.2	100.0
Molokai	38	10	14	3.9	100.0
Oahu	44	30	-	10.6	79.0
Kauai	33	25	11	10.8	65.0
Niihau	8	6	3	2.4	100.0

Island	Percent of area with elevation --		Approximate mean altitude (feet)	Percent of area with slope --	
	Less than 500 feet	2,000 feet or more		Less than 10 percent	20 percent or more
The State ..	20.8	50.9	3,030	63.5	17.0
Hawaii	12.0	68.4	3,950	76.0	4.0
Kaui	24.9	41.4	2,390	38.5	36.0
Kahoolawe	38.9	0	600	60.0	9.0
Lanai	24.8	6.3	1,140	61.0	16.0
Molokai	37.3	17.8	1,150	53.0	26.0
Oahu	45.3	4.6	860	42.5	45.5
Kauai	35.6	24.0	1,380	33.5	50.5
Niihau	78.2	0	530	68.0	12.5

1/ According to Lee S. Motteler, Geography and Map Division, Bernice P. Bishop Museum, the sea cliffs along the northeastern coast of Molokai between Umilehi Point and Puukaoku Point drop 3,250 feet at an average slope of 58 degrees. These cliffs have been described by the *Guinness Book of World Records* (1990 edition, p. 89) as "the highest sea cliffs yet pinpointed anywhere in the world."

Source: Hawaii State Department of Planning and Economic Development, *Hawai'i the Natural Environment* (1974), p. 19; U.S. Geological Survey, *Elevations and Distances in the United States* (1978), pp. 4-5.

Table 140.-- VOLCANIC ERUPTIONS: 1969 TO 1990

[Complete through August 1, 1990. Four volcanoes have erupted in historical times: Haleakala, last active around 1790; Hualalai, last active in 1800-1801; and Kilauea and Mauna Loa, both active in recent years and included in this table]

Volcano and date of outbreak	Repose period since previous eruption (months)	Duration (days)	Location 1/	Elevation (feet)	Area (square miles)	Volume (mil. cubic yards)
Mauna Loa:						
1975: July 5	301	<1	S	13,000	5.2	35.0
1984: March 25	104	22	S, ER	13,200-9,400	11±	230.0
Kilauea:						
1969: Feb. 22	4.0	6	ER	3,100-2,900	2.3	22.0
May 24	2.0	867	ER	3,150	19.3	242.0
1971: Aug. 14	-	<1	C	3,660-3,600	0.8	12.4
Sept. 24	-	5	C, SWR	3,740-2,730	1.5	10.5
1972: Feb. 4	4.3	455	ER	3,150	13.5	163.8
1973: May 5	-	<1	ER	3,340-3,250	0.1	1.6
Nov. 10	-	30	ER	3,250-2,900	0.4	3.7
Dec. 12	0.1	203	ER	3,150	3.1	39.3
1974: July 19	-	3	C, ER	3,600-3,520	1.2	9.0
Sept. 19	2.0	<1	C	3,680	0.4	14.0
Dec. 31	3.4	<1	C	3,600	2.9	19.6
1975: Nov. 29	11.0	<1	C	3,600-3,520	0.1	.3
1977: Sept. 13	21.5	18	ER	2,080-1,600	3.0	45.0
1979: Nov. 16	26.3	1	ER	3,270-3,200	0.1.	.8
1982: April 30	29.5	<1	C	3,630	0.1	.26
Sept. 25	4.9	<1	C	3,620	0.3	3.9
1983: Jan. 3 2/	3.3	2,767	ER	2,560-2,120	27.0	1,650

1/ C, caldera; ER, east rift; S, summit; SWR, southwest rift.

2/ Still in progress, August 1, 1990. As of that time, there had been 48 separate episodes. These had destroyed 168 housing units and added over 150 acres to the area of the island.

Source: Gordon A. Macdonald and Douglass H. Hubbard, Volcanoes of the National Parks in Hawaii, 8th edition (Hawaii Natural History Association, 1982), pp. 10, 19, 34, and 58, as updated by the staff of the Hawaiian Volcano Observatory.

Table 141.-- EARTHQUAKES OF MAGNITUDE 5 OR GREATER: 1975 TO 1990

[Complete to August 24, 1990]

Date and time (HST)	Location	Magnitude (Richter scale)
1975: Jan. 2, 3:27 AM	Near Pahala, Hawaii	5.0
Nov. 29, 3:35 AM	Puna, Hawaii	5.7
Nov. 29, 4:47 AM	Puna, Hawaii	7.2
1976: Feb. 20, 7:51 PM	Between Maui and Hawaii	5.1
1977: Jan. 22, 12:36 PM	100 miles S. of Kauai	5.1
Apr. 20, 6:49 PM	Hamakua, Hawaii	5.0
Jun. 5, 11:42 PM	Puna, Hawaii	5.1
1979: Mar. 29, 11:06 PM	40 miles S.W. of Oahu	5.5
Sept. 21, 9:59 PM	Puna, Hawaii	5.5
1981: Mar. 5, 4:09 AM	Molokai area	5.3
Nov. 10, 3:02 AM	Kilauea, Hawaii	5.3
1982: Jan. 21, 11:52 AM	Mauna Loa, Hawaii	5.5
Jan. 21, 12:29 PM	Mauna Loa, Hawaii	5.5
May 14, 6:26 AM	Off Kawaihae, Hawaii	5.0
1983: Mar. 20, 5:18 PM	Off Kalapana, Hawaii	5.0
Sept. 9, 6:30 AM	Off Kalapana, Hawaii	5.4
Nov. 16, 6:13 AM	S.E. flank of Mauna Loa	6.7
1984: Jun. 8, 5:34 PM	80 miles S. of Honolulu	5.3
1986: Apr. 26, 7:19 AM	28 miles N.E. of Maui	5.1
1987: Feb. 3, 4:22 PM	26 miles S. of Kahoolawe	5.0
1988: March 24, 2:30 PM	30 miles S. of Kahoolawe	5.0
March 27, 5:33 PM	30 miles S. of Kahoolawe	5.5
June 7, 12:49 AM	S. flank of Kilauea	5.0
July 3, 7:38 PM	Near Pahala	5.3
July 22, 10:29 AM	Near French Frigate Shoals	5.0
1989: June 25, 5:27 PM	Kalapana area	6.1
Dec. 27, 11:13 PM	Kilauea East Rift Zone	5.1
1990: Aug. 8, 4:06 PM	Kilauea East Rift Zone	5.4

Source: Hawaii Institute of Geophysics, records; Hawaii Volcano Observatory Summaries; U.S. Geological Survey, National Earthquake Information Service. Data provided by Professor Augustine S. Furumoto, Hawaii Institute of Geophysics, University of Hawaii at Manoa, August 24, 1990.

Table 142.-- EARTHQUAKES WITH HONOLULU INTENSITIES OF V OR GREATER: 1859 TO 1990

[Complete to August 24, 1990]

Date	Epicentral location	Magnitude (Richter scale)	Honolulu average intensity (Modified Mercalli Scale 1/)
1861: Dec. 5	Molokai-Lanai vic. (?)	(NA)	Mid V
Dec. 15	Molokai-Lanai vic. (?)	(NA)	Lower V - mid V
1868: Apr. 2	SE coast of Hawaii	7.5	Upper IV - lower V
Apr. 4	Maui group vicinity (?)	(NA)	Lower V
1871: Feb. 19	S coast of Lanai	7.0	Upper VI - lower VII
1895: Dec. 8	Oahu vicinity (?)	(NA)	Mid V
1926: Mar. 19	N of Kohala, Hawaii	(NA)	Upper IV - lower V
1929: Oct. 5	W of Kona, Hawaii	6.5	Lower V
1938: Jan. 22	N of Maui	6.8	Upper V - lower VI
1948: June 28	S coast of Oahu	4.8	Mid VI
1964: Oct. 11	Ka Lae, Hawaii	5.5	Upper IV - lower V
1973: Apr. 26	Hamakua coast, Hawaii	6.2	Mid V
1981: Mar. 5	Kalohi Channel	5.0	Mid V

NA Not available.

1/ Modified Mercalli Scale of 1931, 1956 abridged version further simplified. This scale, which extends from I to XII, reads in part:

IV. Hanging objects swing. Vibration like passing of heavy trucks or sensation of a jolt. Standing autos rock. Windows, dishes, doors rattle. Crockery clashes. In the upper part of range wooden construction creaks.

V. Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors, shutters, pictures swing. Pendulum clocks stop.

VI. Felt by all. Many frightened, run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books thrown off shelves, pictures off walls. Furniture moved, overturned. Weak plaster and masonry cracked. Small bells ring. Trees, bushes noticeably shaken.

VII. Difficulty in standing. Noticed by drivers of autos. Hanging objects quiver. Furniture broken. Damage to weak masonry. Weak chimneys broken at roof line. Fall of plaster, loose bricks, etc. Some cracks in ordinary masonry. Waves on ponds. Small slides on sand and gravel banks. Large bells ring. Irrigation ditches damaged.

Source: Doak C. Cox, "Earthquake Experience in Honolulu," The Hawaiian Journal of History, Vol. 21 (1987), pp. 98-109, as updated by Augustine S. Furumoto, Hawaii Institute of Geophysics, University of Hawaii at Manoa, August 24, 1990.

Table 143.-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET) OR MORE: 1946 TO 1990

[Complete to August 24, 1990]

Date	Maximum height in Hawaii		Deaths in Hawaii	Damage in Hawaii (dollars)
	Meters	Feet		
1946: April 1	17.0	55.8	159	26,000,000
1952: Nov. 4	6.1	20.0	-	1,000,000
1957: March 9	16.0	52.5	-	5,000,000
1960: May 22	10.5	34.5	61	23,000,000
1964: March 27	4.8	15.7	-	67,590
1975: Nov. 29	14.6	48.0	2	1,500,000

Source: George Pararas-Carayannis, Catalog of Tsunamis in the Hawaiian Islands (U.S. Coast and Geodetic Survey, May 1969); Harold G. Loomis, The Tsunami of November 29, 1975 in Hawaii (Hawaii Institute of Geophysics, December 1975), pp. 1 and 10; D.C. Cox and J. Morgan, Local Tsunamis and Possible Local Tsunamis in Hawaii (Hawaii Institute of Geophysics, Report HIG 77-14, November 1977); Doak C. Cox, Tsunami Casualties and Mortality in Hawaii (University of Hawaii, Environmental Center, June 1987), p. 39; Hawaii Institute of Geophysics, records.

Table 144.-- MAJOR DAMS: 1990

Name	Location	Height (ft.)	Length (ft.)	Volume of water impounded (acre-ft.)
Wahiawa Dam ...	Wahiawa, Oahu	98	460	7,671
Waita	Koloa, Kauai	28	3,250	6,500
Kualapuu	Kualapuu, Molokai .	58	7,100	4,265
Alexander Dam .	Kalaheo, Kauai	119	600	2,500
Ho'omaluhia Dam	Luluku, Oahu	132	2,200	2,500
Nuuanu No. 4 ..	Honolulu, Oahu	73	1,730	1,420

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 145.-- WATER USE, BY TYPE, BY ISLANDS: 1985

[Million gallons per day]

Use	State total	Hawaii	Maui	Lanai	Molo-kai	Oahu	Kauai	Niihau
Total	1,405.14	165.80	471.96	2.99	12.76	401.56	349.53	0.54
Ground water	649.43	72.89	149.72	2.99	5.31	358.14	59.84	0.54
Domestic	182.81	15.71	14.09	0.41	1.32	140.53	10.48	0.27
Agricultural ..	333.35	0.30	135.04	2.58	3.99	144.62	46.55	0.27
Industrial	16.19	5.26	0.59	-	-	10.03	0.31	-
Thermoelectric	86.04	51.62	-	-	-	34.42	-	-
Commercial	31.04	-	-	-	-	28.54	2.50	-
Surface water ...	755.71	92.91	322.24	-	7.45	43.42	289.69	-
Domestic	16.96	9.00	7.56	-	0.07	-	0.33	-
Agricultural ..	567.86	46.12	310.26	-	7.38	43.42	160.68	-
Industrial	2.70	-	-	-	-	-	2.70	-
Thermoelectric	3.80	-	-	-	-	-	3.80	-
Hydroelectric .	164.39	37.79	4.42	-	-	-	122.18	-

Source: Data compiled by the U.S. Geological Survey and provided by the Hawaii State Department of Land and Natural Resources, Division of Water and Land Development.

Table 146.-- WATER SERVICES AND CONSUMPTION, FOR COUNTY WATERWORKS: 1985 TO 1989

Subject and geographic area	1985	1986	1987	1988	1989
NUMBER OF SERVICES, JUNE 30					
State total	188,271	192,261	197,188	201,253	205,442
City and County of Honolulu	130,884	132,775	135,418	137,323	139,144
Honolulu 1/	58,801	59,237	59,590	60,007	60,249
Rest of Oāhu	72,083	73,538	75,828	77,316	78,895
Hawaii County	25,315	26,031	26,939	27,832	28,775
Kauai County	11,872	12,360	12,799	13,274	13,788
Maui County	20,200	21,095	22,032	22,824	23,735
Maui	18,964	19,807	20,708	21,474	22,372
Molokai	1,236	1,288	1,324	1,350	1,363
CONSUMPTION 2/ (MILLION GALLONS)					
State total	65,298	61,432	63,186	66,361	68,543
City and County of Honolulu	48,308	44,125	44,839	47,379	49,135
Honolulu 1/	27,218	24,454	24,857	25,826	26,624
Rest of Oāhu	21,090	19,671	19,982	21,553	22,511
Hawaii County	5,666	6,039	6,503	6,575	6,620
Kauai County	3,531	3,667	3,472	3,787	3,974
Maui County	7,793	7,601	8,372	8,620	8,814
Maui	7,493	7,314	8,068	8,311	8,510
Molokai	300	287	304	309	304

1/ Maunalua to Moanalua.

2/ Year ended June 30.

Source: Data compiled by Hawaii State Department of Business and Economic Development from Honolulu Board of Water Supply, Hawaii County Department of Water Supply, Kauai Department of Water, and Maui Department of Water Supply.

Table 147.-- POLLUTION ABATEMENT COSTS AND EXPENDITURES: 1986 AND 1988

[Millions of dollars. Statistics cover manufacturing establishments with 20 employees or more]

Subject	1986	1988
Total pollution abatement capital expenditures	1.8	7.9
Gross annual cost of pollution abatement	15.3	16.2
Payments to government units	0.7	0.5
Operating costs, total	14.6	15.7
Cost recovered through abatement activities	0.5	1/ 0.8
Operating costs by form of pollutants abated:		
Air	3.8	4.8
Water	5.6	5.5
Solid waste, hazardous	1.1	1.3
Solid waste, non-hazardous	4.1	4.2
Operating costs by kind of cost:		
Depreciation	2.3	2.4
Labor	3.4	3.6
Materials and supplies	3.8	4.7
Services, equipment leasing, and other costs	5.1	4.9

1/ For water and solid waste pollution only.

Source: U.S. Bureau of the Census, "Pollution Abatement Costs and Expenditures, 1986," Current Industrial Reports, MA-200 (86)-1 (April 1989), pp. 20, 37, and 53, and "Manufacturers' Pollution Abatement Capital Expenditures and Operating Costs, Final Report for 1988," Current Industrial Reports, MA 200 (88)-1 (September 1990), pp. 14, 31, and 48.

Table 148.-- WATER QUALITY AT PUBLIC BEACHES: 1989

Island and beach	Number of samples	Enterococci density 1/ (geometric mean, number/100 ml)
Hawaii (Hilo Shoreline Area):		
Coconut Island	1	5.0
Exit of Ice Pond	10	6.4
Hilo Bay (boat landing)	3	.7
Hilo Bay (lighthouse)	3	5.2
Hilo Bay (Mooheau Park)	3	3.4
Hilo Bay (offshore)	19	2.0
Honolii Cove (ocean)	1	48.5
Kolekole Gulch (stream)	3	138.9
Leleiwi Beach Park	10	11.5
Onekahakaha Beach (swimming area)	10	5.3
Puhi Bay #3	10	2.5
Richardson Ocean Center	10	8.4
Hawaii (Kona Shoreline Area):		
Banyan's Surfing Area	6	1.9
Hapuna Beach	12	1.5
Kahaluu Beach	12	1.0
Kailua Pier Station A	6	1.0
Kailua Pier Station B	6	1.3
Kailua Pier Station C	6	1.2
Kealakekua Bay (off canoe landing)	12	1.1
Kealakekua Bay (off curio stand) .	12	1.5
Magic Sands Beach	12	1.0
Puako Beach Lots (far end of lot)	12	4.7
Puako Beach Lots (middle of lot) .	12	2.2
Spencer Beach Park	12	6.5
Maui:		
Fleming (Kapalua) Beach	3	1.1
Hale Onoloa condominium shore	4	1.6
Hana Bay	2	4.2
Honomanu Bay	2	6.5
Hukilau Hotel shoreline	8	1.1
Kaa shoreline	4	.9
Kahului Bay	4	.7
Lahaina outfall	1	.7
Lahaina Small Boat Harbor	3	13.0
Maalaea Small Boat Harbor	2	1.4
Mahinahina condominium shorline ..	4	.8
Makena Beach	4	.7
Mala Wharf	2	42.5

Continued on next page.

Table 148.-- WATER QUALITY AT PUBLIC BEACHES: 1989 -- Con.

Island and beach	Number of samples	Enterococci density 1/ (geometric mean, number/100 ml)
Maui--con.:		
Olowalu shore front	2	5.9
Paia outfall	4	1.7
Seven Pools	2	16.7
Sheraton Kaanapali shoreline	5	0.8
Waiehu Stream mouth	4	3.8
Waihee farm shoreline	3	1.1
Wailuku Breakwater	3	2.3
Lanai:		
Hulopoe Bay	2	6.5
Manele Small Boat Harbor	2	52.1
Molokai:		
Kalaeloa Harbor	2	6.3
Kaunakakai Harbor	2	26.4
Oahu:		
Ala Moana Bridge	38	119.7
Ala Moana Park (center)	12	1.8
Ala Moana Park (diamond head end)	24	2.8
Ala Moana Park (ewa end)	30	1.4
Elk's Club Beach	11	1.1
Ewa Beach Park	21	1.8
Ft. DeRussy Beach	9	1.7
Gray's Beach	28	2.1
Hanauma Bay	29	8.3
Heeia Kea Small Boat Harbor	16	1.8
Kaelepulu Stream	26	13.7
Kahala Beach	1	16.8
Kahana Beach Park	10	7.8
Kahanamoku Beach	22	3.9
Kahanamoku Lagoon (diamond head) .	28	3.3
Kaiaka Bay	13	5.1
Kailua Bay Outfall (shoreline) ...	20	0.8
Kailua Beach Park	26	4.2
Kalama Beach	27	2.6
Kaneohe Bay (central region)	2	.5
Kaneohe Bay (northern region)	2	.5
Kaneohe Bay (southern region).....	3	8.1
Kawela Bay	13	5.1
Kewalo Basin	1	1.2

Continued on next page.

Table 148.-- WATER QUALITY AT PUBLIC BEACHES: 1989 -- Con.

Island and beach	Number of samples	Enterococci density 1/ (geometric mean, number/100 ml)
Oahu--con.:		
Kokokahi Pier	18	17.1
Kuhio Beach	22	4.9
Mamala Bay (Sand Island offshore)	9	0.6
McCully Street Bridge	27	105.2
Oneawa Beach	26	2.6
Public Bath Beach	25	1.6
Sand Island Point #1	1	1.6
Sand Island Point #2	13	2.6
Sand Island Point #3	22	1.8
Sand Island Point #4	1	3.2
Tavern Beach	9	1.1
Waimanalo Bay	25	2.3
Waimanalo Beach	27	1.7
Waimanalo Surfers' Beach	17	1.2
Kauai:		
Anahola Bay Pavilion	4	20.2
Anini Park Pavilion	4	6.0
Brennecke Beach	5	1.9
Hanalei Bay landing	1	3.5
Hanalei Bay Pavilion	3	4.4
Hanamaulu Beach (middle)	5	62.7
Hanapepe Salt Pond	5	1.9
Kalapaki Beach (middle)	5	21.8
Kapaa Pavilion	4	1.9
Kealia Beach	4	.9
Kekaha (Oomano Point)	5	.8
Poipu Beach Pavilion	5	2.2
Port Allen Pier	3	.7
Wailua Beach (north end)	4	4.7
Wailua River	4	150.3
Waimea Bay	3	4.9
Waimea Bay Beach (near river)	1	.7
West of Lydgate Park wading pool .	4	3.3

1/ The geometric mean standard for Enterococci density is 7 per 100 ml. The Water Quality Standards for the State of Hawaii have recently been revised. Enterococci density is now considered to be a better indicator of water quality than Fecal Coliform density used in earlier tables.

Source: Hawaii State Department of Health, Clean Water Branch, data supplied April 26, 1990.

Table 149.-- REFUSE AND SEWAGE STATISTICS FOR OAHU: 1980 TO 1989

[Fiscal years]

Year	Tons of refuse delivered 1/			Sewage treated 2/ (millions of gallons)
	Total	City and County refuse vehicles	Other vehicles	
1980	686,438	221,774	464,664	36,885
1981	708,164	258,600	449,634	35,945
1982	669,120	244,826	424,294	34,830
1983	645,889	244,812	401,077	37,395
1984	707,473	235,767	471,706	38,283
1985	655,790	216,685	439,105	37,817
1986	729,611	252,081	477,530	37,608
1987	724,448	254,699	469,749	38,199
1988	847,873	262,477	585,396	39,757
1989	778,673	302,851	475,822	39,918

Year	Sewage pumped 2/ (millions of gallons)	Miles of sewers 2/	City and County pump stations	City and County treatment plants
1980	45,165	1,592	47	19
1981	43,744	1,623	48	19
1982	44,687	1,646	50	21
1983	48,442	1,670	52	20
1984	48,320	1,691	51	18
1985	49,361	1,711	51	17
1986	48,559	1,736	55	17
1987	49,542	1,752	57	17
1988	51,713	1,769	59	17
1989	50,369	1,805	59	14

1/ Excludes small landfill controlled by armed forces. Palailai landfill closed in 1988. Data for 1989 exclude refuse delivered to other private landfills.

2/ Data limited to system maintained by the City and County of Honolulu Public Works Department.

Source: City and County of Honolulu, Departmental and Agency Reports (annual), and City Refuse Division, records.

Table 150.-- HAZARDOUS WASTE SITES ON THE NATIONAL PRIORITY LIST: 1989

Category	Number	Rank 1/
All sites	7	42
Non-Federal sites	6	42
Federal sites	1	25

1/ Among the 50 States (ranks are the same if the District of Columbia is included). The national total was 1,219 sites.

Source: EPA data cited in Statistical Abstract of the United States: 1990, p. 205.

Table 151.-- LITTER ALONG OAHU HIGHWAYS: 1979 TO 1988

Measure	1979	1981	1985	1988
Visible litter items per mile	1,381	1,672	1,038	892
Visible beer/soft drink containers per mile	144	80	49	26
Indiscriminate dumps per 1,000 miles of driving	8.2	15.7	19.6	14.1
Abandoned vehicles per 1,000 miles of driving	4.9	23.6	57.4	6.8

Source: Daniel B. Syrek, Hawaii Litter: 1988 (Sacramento: The Institute for Applied Research, for the Hawaii State Department of Health, Litter Control Office, May 13, 1988).

Table 152.-- AIR QUALITY IN DOWNTOWN HONOLULU: 1979 TO 1989

[Annual arithmetic means, in micrograms per cubic meter, for total suspended particulates and sulfur oxides. Sampling is conducted about 46 feet above ground on the roof of the State Health Department building, 1250 Punchbowl Street, Honolulu, Hawaii]

Year	Particulates	Sulfur oxides
1979	32	22
1980	37	18
1981	40	19
1982	29	11
1983	26	<5
1984	25	<5
1985	24	<5
1986	25	<5
1987	26	<5
1988	26	<5
1989	30	<5
Standards: 1/		
Primary	75	80
Secondary	60	...

1/ Primary and secondary national ambient air quality standards have been promulgated by the Federal government. Primary standards are designed to prevent adverse effects on public health, while secondary standards are designed to prevent adverse effects on public welfare, including the effects on comfort, visibility, vegetation, animals, aesthetic values, and soiling and deterioration of materials.

Source: Hawaii State Department of Health, Clean Air Branch, data supplied April 26, 1990.

Table 153.-- AIR QUALITY AT SPECIFIED LOCATIONS: 1989

[24-hour sampling, in micrograms per cubic meter]

Sampling station	Total suspended particulates			Sulfur dioxide		
	Annual range		Arithmetic average	Annual range		Arithmetic average
	Minimum	Maximum		Minimum	Maximum	
Oahu:						
Barbers Point 1/	10	44	26	<5	20	<5
Downtown Honolulu	16	48	30	<5	8	<5
Liliha	23	60	32	...	...	...
Pearl City 1/	8	21	15	...	...	...
Waimanalo 2/	15	57	25	...	...	...
Maui:						
Kihei 1/, 3/	9	38	22	<5	<5	<5
Lahaina 1/, 4/	6	25	14	...	...	...
Kauai:						
Lihue 1/	8	34	17	...	...	...

1/ Particulate data from PM_{10} samplers (measuring inhalable particulates of less than 10 micrograms).

2/ Six months of data.

3/ Eight months of data.

4/ Nine months of data.

Source: Hawaii State Department of Health, Clean Air Branch, data supplied April 26, 1990.

Table 154.-- ATMOSPHERIC CARBON DIOXIDE MEASUREMENTS AT MAUNA LOA: ANNUAL MEAN VALUES, 1958 TO 1989

[Parts per million]

Year	Annual average	Year	Annual average	Year	Annual average
1958 ...	1/ 315.17	1969 ...	323.93	1980 ...	338.72
1959 ...	315.83	1970 ...	325.27	1981 ...	340.12
1960 ...	316.75	1971 ...	326.17	1982 ...	341.21
1961 ...	317.49	1972 ...	327.26	1983 ...	342.87
1962 ...	318.30	1973 ...	329.45	1984 ...	344.48
1963 ...	318.83	1974 ...	1/ 329.72	1985 ...	345.85
1964 ...	2/ 319.04	1975 ...	3/ 331.14	1986 ...	347.21
1965 ...	319.87	1976 ...	332.04	1987 ...	348.98
1966 ...	321.21	1977 ...	333.79	1988 ...	351.34
1967 ...	322.02	1978 ...	335.35	1989 ...	352.75
1968 ...	322.83	1979 ...	336.73		

1/ Based on data for 8 months.
2/ Based on data for 9 months.
3/ Based on data for 11 months.

Source: National Oceanic and Atmospheric Administration, Geophysical Monitoring for Climatic Change, records; provided by Saul Price, National Weather Service, Pacific Region, Honolulu.

Table 155.-- SOURCES OF AIR POLLUTANT EMISSIONS, BY COUNTIES: 1980

[Percent distributions for the sums of weights of sulfur oxides, particulate matter, carbon monoxide, hydrocarbons, and nitrogen oxide emissions]

Source	State total	Hawaii	Honolulu	Kauai	Maui
All sources	100.0	100.0	100.0	100.0	100.0
Transportation	43.0	38.1	47.4	40.6	35.8
Motor vehicles	40.1	36.2	43.9	35.7	33.1
Aircraft	2.3	1.1	2.9	2.3	1.6
Vessels	0.6	0.8	0.6	2.6	1.1
Fuel combustion in stationary sources	29.7	34.9	26.7	32.2	35.3
Steam electric	23.1	19.8	24.6	18.5	22.4
Gas utilities	0.1	(N)	0.1	(N)	(N)
Agricultural fuel	6.5	15.1	2.0	13.7	12.9
Industrial process losses	14.6	7.7	20.3	3.2	3.5
Refinery	4.8	(N)	6.5	(N)	(N)
Petroleum storage	0.7	1.1	0.8	(N)	0.5
Metalurgical	0.1	(N)	0.1	(N)	(N)
Mineral products	6.9	3.9	10.8	0.9	1.1
Off-highway const., farms and industries	2.1	2.7	2.1	2.3	1.9
Municipal incinerator	0.9	(N)	1.3	(N)	(N)
Agricultural burning	11.7	19.3	4.3	24.2	25.4

N Less than 0.05 percent.
Source: Hawaii State Department of Health, Environmental Permits Branch, information provided May 10, 1989.

Table 156.-- NOISE LEVELS DURING DAYLIGHT HOURS IN SPECIFIED NEIGHBORHOODS ON OAHU: 1981-1982

[Noise levels, in decibels, exceeded 10, 50, and 90 percent of the time]

Neighborhood	Manual sampling			Automatic sampling		
	10	50	90	10	50	90
Aina Haina	45.6	42.1	39.5	53.5	46.2	43.2
Aina Koa	48.1	43.1	40.1	52.9	45.8	42.5
Downtown	57	55	54	60	57	55
Hawaii Kai	46.5	41.6	38.9	53.5	46.9	42.9
Kahala	48.0	44.5	42.4	-	-	-
Kaimuki	51.8	44.6	41.7	57.2	47.6	43.3
Kalihi	53.5	49.6	47.4	-	-	-
Kapahulu	47.2	45.0	42.0	-	-	-
Kapalama-Liliha	46.4	45.1	42.5	-	-	-
Kuliouou	48.6	45.9	43.4	52.5	47.9	45.4
Liliha	46	45	43	-	-	-
Makiki	52.7	46.9	45.3	56.5	50.5	48.6
Manoa	45.4	42.6	40.7	51.5	46.0	43.4
Moiliili	53.7	50.2	46.9	60.0	53.4	48.9
Nuuanu	46.6	43.6	40.8	-	-	-
Palolo	49.3	44.6	41.6	65.0	52.4	45.4
Pawaa	59.8	57.1	55.2	60.8	57.1	54.7
Salt Lake	56	52	49	-	56	51
Waikiki	57.8	55.4	54.1	61.6	57.5	55.3
Waialae Iki ...	46.4	43.1	40.6	54.6	44.8	41.7
Aiea	58	54	52	59	56	54
Halawa	52	46	44	55	50	47
Hauula	53	48	45	56	51	47
Kailua	49.2	45.5	42.9	54.9	49.6	45.2
Kaneohe	43.8	40.9	38.9	49.7	43.5	40.9
Mililani	44	37	34	53	46	41
Nanakuli	54	50	47	58	52	48
Pearl City	51	47	45	55	50	48
Wahiawa	47.1	44.7	42.4	51.8	47.3	43.9
Waimanalo	53	50	48	55	51	49
Waipahu	54.1	50.5	47.4	58.8	53.6	50.4

Source: Hawaii State Department of Health, Environmental Protection and Health Services Division, Noise and Radiation Branch, records.

Table 157.-- TEMPERATURES AND PRECIPITATION FOR SELECTED PLACES

Island and station	Ground elevation (feet)	Average temperature (°F.)		Extreme temperature of record (°F.)		Average annual precipitation (inches)
		Coolest month	Warmest month	Lowest	Highest	
Hawaii:						
Hilo Airport	30	71.2	75.9	53	94	128
Hawaii Volcanoes Nat. Park Hdq.	3,970	57.6	63.2	37	85	101
Naalehu	675	70.2	75.2	55	90	47
Kailua	30	72.1	77.3	54	93	25
Puako 1/	5	73.1	79.8	52	98	10
Waimea (Kamuela)	2,670	61.3	66.8	34	90	31
Honokaa	1,070	67.6	75.5	(NA)	(NA)	86
Mauna Kea summit 2/	13,796	31.3	42.5	11	66	20
Maui:						
Hana	120	71.3	76.8	50	90	69
Haleakala summit	10,025	42.6	50.0	14	73	44
Kihei 3/	85	70.9	78.4	49	98	13
Kahului Airport	40	71.5	79.2	48	96	20
Lahaina	45	71.5	78.0	52	93	15
Molokai:						
Kaunakakai	10	(NA)	(NA)	(NA)	(NA)	14
Molokai Airport	450	70.2	77.6	48	90	27
Lanai:						
Lanai City	1,620	65.8	72.8	46	88	37
Oahu:						
Honolulu International Airport	10	72.6	81.0	53	94	23
Waikiki (Honolulu Zoo)	10	71.9	80.6	51	93	25
Manoa (Lyon Arboretum)	500	69.4	75.2	(NA)	(NA)	158
Kaneohe MCAS	10	72.9	79.1	58	90	40

Continued on next page.

Table 157.-- TEMPERATURES AND PRECIPITATION OR SELECTED PLACES -- Con.

Island and station	Ground elevation (feet)	Average temperature (°F.)		Extreme temperature of record (°F.)		Average annual precipitation (inches)
		Coolest month	Warmest month	Lowest	Highest	
Oahu (con.):						
Kahuku	25	71.6	78.8	49	95	40
Wheeler AFB	845	68.2	75.5	52	89	40
Waianae	10	72.1	79.7	45	96	20
Kauai:						
Kilauea (town)	315	68.7	75.6	49	94	68
Lihue Airport	100	71.3	79.1	50	90	44
Poipu (Makahuena Pt.)	50	72.4	79.4	50	93	35
Kokee (Kanalohuluhulu)	3,600	54.9	65.5	31	83	70
Waialeale	5,075	(NA)	(NA)	(NA)	(NA)	444
Northwestern Hawaiian Islands:						
Midway	10	65.0	78.6	52	89	44

NA Not available.
1/ Temperature data are for Mahukona.
2/ Based on incomplete and non-continuous data for 1966-1972. Precipitation estimated.
3/ Temperature data refer to Puunene Airport.

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data supplied September 25, 1990.

Table 158.-- CLIMATIC NORMALS, MEANS, AND EXTREMES FOR HILO, KAHULUI, HONOLULU, AND LIHUE AIRPORTS

Subject	Hilo	Kahului	Honolulu	Lihue
Normal temperatures (°F.):				
Daily maximum	81.2	83.8	84.2	81.1
Daily minimum	65.9	67.2	69.7	69.3
Monthly: Coolest month	71.2	71.5	72.6	71.3
Warmest month	75.9	79.2	81.0	79.1
Annual	73.6	75.5	77.0	75.2
Extreme temperatures (°F.):				
Record highest	94	96	94	90
Record lowest	53	48	53	50
Normal degree days, base 65°F.:				
Heating	-	-	-	-
Cooling	3,134	3,851	4,389	3,758
Precipitation (inches):				
Normal	128.15	19.85	23.47	44.02
Maximum monthly	50.82	14.46	20.79	22.91
Minimum monthly	0.28	0.00	T	T
Relative humidity (percent):				
8 A.M.	80	75	72	78
2 P.M.	68	58	56	66
Wind speed (m.p.h.):				
Mean	7.2	12.8	11.4	12.1
Fastest observation, 1 minute 1/	35	44	46	65
Percent of possible sunshine	41	67	68	56
Mean number of days:				
Clear	35.9	131.8	88.0	54.2
Partly cloudy	129.7	143.0	180.5	181.7
Cloudy	199.7	90.4	96.7	129.4
Precipitation .01 inch or more	278.1	98.2	99.0	201.0

T Trace amount.

1/ Kahului figure refers to fastest mile.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary with Comparative Data, 1989 for Hilo, Kahului, Honolulu, and Lihue.

Table 159.-- MONTHLY AND ANNUAL CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT

Month	Normal temperature (°F)			Extreme temperature (°F)		Precipitation (inches)			
	Daily maximum	Daily minimum	Monthly	Record highest	Record lowest	Normal total	Maximum monthly	Minimum monthly	Maximum in 24 hours
January ...	79.9	65.3	72.6	87	53	3.79	14.74	0.18	6.72
February ..	80.4	65.3	72.9	88	53	2.72	13.68	0.06	6.88
March	81.4	67.3	74.4	88	55	3.48	20.79	0.01	17.07
April	82.7	68.7	75.7	89	57	1.49	8.92	0.01	4.21
May	84.8	70.2	77.5	93	60	1.21	7.23	0.05	3.44
June	86.2	71.9	79.1	92	65	0.49	2.46	T	2.28
July	87.1	73.1	80.1	92	67	0.54	2.33	0.03	2.20
August	88.3	73.6	81.0	93	67	0.60	3.08	T	2.35
September .	88.2	72.9	80.6	94	66	0.62	2.74	0.05	1.40
October ...	86.7	72.2	79.5	94	64	1.88	11.15	0.11	7.57
November ..	83.9	69.2	76.6	93	58	3.22	14.72	0.03	9.15
December ..	81.4	66.5	74.0	89	54	3.43	17.29	0.06	8.25
Annual	84.2	69.7	77.0	94	53	23.47	20.79	T	17.07

Continued on next page.

Table 159.-- MONTHLY AND ANNUAL CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT -- Con.

Month	Relative humidity (percent)		Wind (miles/hour)		Percent of possible sun-shine	Mean sky cover, sunrise to sun-set 2/	Mean number of days		
							Sunrise to sunset		Precip. .01 inch or more
	8 A.M.	2 P.M.	Mean speed	Fastest obs. 1/			Clear	Cloudy	
Jan. ...	81	62	9.6	32	63	5.4	9.4	8.6	9.8
Feb. ...	79	59	10.3	30	65	5.6	7.9	7.9	9.3
Mar. ...	73	57	11.4	30	70	5.8	7.2	9.4	8.9
Apr. ...	70	56	12.0	31	67	6.2	5.3	10.5	9.1
May	67	54	11.9	30	69	6.0	6.3	9.5	7.3
June ...	66	52	12.7	26	71	5.6	5.9	6.7	5.8
July ...	67	51	13.3	28	74	5.3	7.5	5.3	7.4
Aug	68	53	12.9	28	75	5.3	7.9	6.2	6.4
Sept. ..	68	52	11.4	26	76	5.2	7.8	5.9	7.0
Oct. ...	70	55	10.6	25	68	5.7	7.3	8.4	8.8
Nov. ...	75	58	10.8	46	61	5.7	7.0	9.2	9.2
Dec. ...	79	61	10.4	30	59	5.5	8.5	9.1	10.1
Ann. ...	72	56	11.4	46	68	5.6	88.0	96.7	99.0

T Trace amount.

1/ Fastest observation, 1 minute, during 8-year period of record.

2/ Sky cover is expressed in a range of 0 for no clouds or obscuring phenomena to 10 for complete sky cover.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, 1989.

Table 160.-- CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT: ANNUALLY, 1979 TO 1989

Year	Average temperature (°F)			Extreme temp. (°F)		Precipitation (inches)
	Annual	Coolest month	Warmest month	Lowest	Highest	
1979 ...	77.0	69.9	81.1	57	93	16.93
1980 ...	77.5	71.9	81.6	56	91	26.90
1981 ...	77.1	73.2	80.7	53	90	13.41
1982 ...	76.9	71.7	81.4	56	92	34.92
1983 ...	77.2	71.3	82.4	53	92	5.03
1984 ...	78.1	74.1	81.7	57	94	17.08
1985 ...	76.9	71.4	81.9	54	93	17.38
1986 ...	78.3	72.6	82.9	56	94	13.93
1987 ...	77.9	71.2	82.9	55	94	23.53
1988 ...	78.5	73.1	82.1	57	94	16.47
1989 ...	77.5	72.9	81.9	56	92	27.52

Year	Relative humidity (percent)		Wind speed (miles/hour)		Percent of possible sunshine	Days with precipitation .01 inch or more
	8 A.M.	2 P.M.	Annual average	Peak gust 1/		
1979 ...	74	57	11.4	34	68	89
1980 ...	75	59	11.9	35	69	115
1981 ...	76	59	10.7	30	72	97
1982 ...	73	59	10.4	46	56	124
1983 ...	75	52	9.8	23	64	78
1984 ...	72	53	10.2	40	71	81
1985 ...	72	55	10.6	46	69	87
1986 ...	74	55	10.1	41	77	88
1987 ...	70	54	9.9	41	73	99
1988 ...	71	53	9.8	39	75	88
1989 ...	72	55	10.5	41	79	82

1/ Before 1984, figures refer to fastest mile.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, *Local Climatological Data, Annual Summary With Comparative Data, Honolulu, Hawaii* (annual).

Table 161.-- CLIMATIC DATA FOR THE PERIOD OF RECORD

Subject	Date	Place	Magnitude
Long-term averages:			
Lowest monthly average minimum temp. (°F.)	February	Mauna Kea summit	23.5
Lowest monthly average daily temp. (°F.)	February	Mauna Kea summit	31.3
Highest monthly average maximum temp. (°F.)	September	Kawaihae 1/	91.9
Highest monthly average daily temp. (°F.)	September	Kawaihae 1/	80.8
Lowest average annual rainfall (inches)		Kawaihae	8.7
Highest average annual rainfall (inches)		Waialeale	444
Single events:			
Lowest temperature of record (°F.)	Jan. 20, 1970	Mauna Kea summit 2/	1.4
Highest temperature of record (°F.)	April 27, 1931	Pahala	100
Lowest annual rainfall of record (inches)	1953	Kawaihae	0.2
Highest annual rainfall of record (inches)	1982	Waialeale	666
Highest wind speed of record (m.p.h.)	Nov. 23, 1982	Makahuena Pt. 3/	117

1/ Puukohola Heiau National Historical Site, Kawaihae, Hawaii.

2/ Recorded by Dr. Alfred Woodcock 60 meters inside the Mauna Kea summit cone, at 6:50 a.m. The rim at that time had a temperature of 39° F.

3/ Makahuena Point Coast Guard Station, Poipu, Kauai.

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data supplied September 25, 1990.

Table 162.-- RAINFALL AT SPECIFIED LOCATIONS: ANNUALLY, 1979 TO 1989

[In inches]

Year	Hawaii			Maui		
	Hilo Airport	Waimea 1/	Kona Village	Kahului Airport	Kihei	Lahaina
1979 ...	158.77	29.23	16.00	26.82	21.32	20.85
1980 ...	127.74	28.31	16.90	27.87	20.27	22.69
1981 ...	89.91	13.30	7.02	12.85	9.72	8.13
1982 ...	170.36	56.29	26.88	34.04	29.11	34.36
1983 ...	68.09	12.95	8.51	13.05	8.60	9.70
1984 ...	100.08	8.87	8.15	8.56	5.64	6.30
1985 ...	112.96	16.58	8.60	20.00	13.86	13.48
1986 ...	171.03	34.67	12.41	18.39	7.25	7.38
1987 ...	142.41	19.43	10.24	24.31	14.03	19.72
1988 ...	140.19	12.52	11.70	26.79	17.03	14.91
1989 ...	166.71	(NA)	13.32	40.63	27.00	26.95

Year	Oahu			Kauai		
	Waikiki	Univ. of Hawaii	Nuuanu Res. 4	Koloa	Lihue Airport	Princeville
1979 ...	26.22	46.74	111.56	55.98	37.09	93.19
1980 ...	28.50	48.52	140.70	78.78	54.64	130.55
1981 ...	19.09	31.71	112.46	66.26	38.14	130.72
1982 ...	39.96	57.98	168.16	96.75	74.40	241.22
1983 ...	9.80	19.77	74.32	50.69	16.40	46.93
1984 ...	19.35	33.13	71.32	48.82	30.12	71.58
1985 ...	25.61	42.19	101.20	48.70	28.91	55.22
1986 ...	22.39	32.39	120.60	64.64	27.99	90.28
1987 ...	27.56	46.52	134.29	72.53	42.95	94.61
1988 ...	24.50	(NA)	124.42	63.23	43.06	77.10
1989 ...	(NA)	39.53	129.50	87.81	56.77	116.65

NA Not available.

1/ Lalamilo Field Office.

Source: U.S. Department of Commerce, National Climatic Data Center, *Climatological Data, Annual Summary, Hawaii and Pacific* (annual); and Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 163.-- MAJOR HURRICANES: 1950 TO 1990

[Complete to September 26, 1990]

Hurricane name	Date 1/	Islands most affected	Maximum winds ashore (m.p.h.)		Deaths	Property damage (mil. dol.)
			Sustained	Gusts		
Hiki	Aug. 15-17, 1950	Kauai	68	(NA)	1	0.2
Della	Sept. 4, 1957	French Frig. Shoals	82	109	-	Minor
Nina	Dec. 1-2, 1957	Kauai	(NA)	92	1	0.1
Dot	Aug. 6, 1959	Kauai	81	103	-	5.5+
Fico	July 18-20, 1978	Hawaii	(NA)	58+	-	0.2
Iwa	Nov. 24, 1982	Kauai, Oahu	65	117	1	234.0
Estelle ...	July 22, 1986	Maui, Hawaii	(NA)	55	-	2.0

NA Not available.

1/ Period affecting the Hawaiian Islands.

Source: Samuel L. Shaw, A History of Tropical Cyclones in the Central North Pacific and the Hawaiian Islands, 1832-1979 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, September 1981); Hawaii State Department of Defense, Civil Defense Division, Catalogue of Natural and Man-Caused Incidents and Disasters in the Hawaiian Islands (December 1978); The Governor's Ad Hoc Committee on the Economic Impact of Hurricane Iwa, Hurricane Iwa's Economic Impact on Hawaii (January 1983); "The History of Hurricanes in Hawaii," Honolulu Star-Bulletin, July 18, 1983, p. A-5; "20-Foot Waves Hit Big Isle As Storm Brushes Coastline," Honolulu Advertiser, July 23, 1986, pp. A-1, A-2; "Hawaii Hurricanes," Honolulu Star-Bulletin, August 4, 1988, p. A-8; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data provided September 25, 1990.

Table 164.-- TRADE WINDS, HIGH SURF, AND TEMPERATURES IN HAWAIIAN WATERS, BY MONTHS

Month	Trade wind frequency 1/ (percent)	Expected days of strong trade winds 2/	Highest surf 3/ (average number of days)		Water temperature 4/ (°F.)	
			Flat or 1 foot	6 feet or more	Mean maximum	Mean minimum
Jan. ...	42	9	1	19	74.7	71.1
Feb. ...	55	7	1	16	75.6	70.3
March ..	61	10	1	12	76.5	71.8
April ..	74	10	3	7	77.7	73.0
May	86	7	8	3	79.5	74.7
June ...	91	7	15	-	81.1	77.7
July ...	95	10	16	-	81.1	78.3
Aug. ...	94	7	15	-	81.9	79.2
Sept. ..	83	4	10	2	81.9	78.4
Oct. ...	71	4	1	12	81.1	77.2
Nov. ...	64	8	-	19	79.3	74.5
Dec. ...	57	9	-	20	75.9	71.4
Ann. ...	73	92	71	110	78.6	74.8

1/ Mean monthly frequency of trade winds in Hawaiian waters.

2/ Expected number of hazardous days in Hawaiian waters due to strong trade winds.

3/ Observations at Sunset Beach, Oahu. Annual averages were: flat or 1 foot, 71 days; 2-5 feet, 184 days; 6-10 feet, 71 days; 11-15 feet, 26 days; 16 feet or higher, 13 days.

4/ Observations at Kaneohe, Oahu. The mean ranged from 73.0 in January and February to 80.2 in August. Absolute maximums and minimums were respectively 84 (in July, August, and October) and 68 (December and February).

Source: Paul Haraguchi, Weather in Hawaiian Waters (Honolulu: Pacific Weather, Inc., 1979), pages 14, 22, 56, and 74; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data provided September 25, 1990.

Table 165.-- AVERAGE WATER TEMPERATURES AT WAIKIKI BEACH

[In Fahrenheit degrees]

Month	Morning	Afternoon
March	75	77
August	77	82

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, Hawaii, 1983.

Table 166.-- SUNRISE, SUNSET, AND HOURS OF DAYLIGHT AT SELECTED LOCATIONS, AT BEGINNING OF EACH SEASON

[Hawaiian Standard Time]

Subject	Hilo	Kahului	Honolulu	Lihue	Barking Sands
Sunrise (A.M.):					
March 21	6:24	6:29	6:35	6:41	6:42
June 21	5:42	5:45	5:50	5:55	5:56
Sept. 23	6:09	6:15	6:21	6:26	6:28
Dec. 22	6:51	6:58	7:05	7:12	7:14
Sunset (P.M.):					
March 21	6:32	6:37	6:43	6:49	6:51
June 21	7:02	7:10	7:16	7:23	7:25
Sept. 23	6:16	6:21	6:27	6:33	6:35
Dec. 22	5:47	5:50	5:55	6:00	6:01
Hours of daylight:					
March 21	12:08	12:08	12:08	12:08	12:09
June 21	13:20	13:25	13:26	13:28	13:29
Sept. 23	12:07	12:06	12:06	12:07	12:07
Dec. 22	10:56	10:52	10:50	10:48	10:47

Source: Nautical Almanac Office, U.S. Naval Observatory, Tables of Sunrise and Sunset, No. 1083 and 1084, and records. Data provided by Saul Price, Staff Meteorologist, National Weather Service, Pacific Region.

Table 167.-- HAWAII AUDUBON SOCIETY BIRD COUNTS OF THE HONOLULU AREA: 1986 TO 1989

[Counts are made in late December, in a circle, 15 miles in diameter, centered near Nuuanu Pali]

Species 1/	1986	1987	1988	1989
All species:				
Species	50	50	48	48
Individual birds ..	28,690	29,009	29,909	25,405
Endemic species:				
'Apapane	85	79	173	21
Hawaiian Coot	23	10	38	34
Hawaiian Stilt	103	149	135	149
Oahu 'Amakihi	110	155	108	107
Indigenous species:				
Great Frigatebird	6	15	24	62
Red-footed Booby	402	785	748	1,359
Introduced species:				
Cattle Egret	988	1,009	789	289
Common Myna	5,420	5,752	5,417	2,756
House Sparrow	2,633	2,156	1,426	1,642
Japanese White-eye	1,078	1,455	1,024	1,061
Red-vented Bulbul	2,023	2,361	2,256	2,196
Spotted Dove	2,533	2,398	2,284	1,972
Zebra (Barred) Dove	7,860	5,830	8,739	7,047
Migratory species:				
Lesser Golden-Plover ...	1,482	1,673	2,046	1,601
Ruddy Turnstone	317	272	373	230

1/ Separate data are shown for endemic birds averaging more than 25 individuals in 1975-1979, indigenous birds more than 200, introduced birds more than 500, and migratory species and stragglers more than 100. Endemic birds are those peculiar to a particular region, in this case Hawaii, and therefore found nowhere else in the world; indigenous birds are those native to a given region, in this case Hawaii, but with a total range ~~of di~~stribution encompassing a much wider area. The classification is that in Andrew J. Berger, Hawaiian Birdlife (1972).

Source: Hawaii Audubon Society, 'Elepaio (monthly).

Table 168.-- HAWAII AUDUBON SOCIETY BIRD COUNT OF THE HONOLULU AREA, BY TYPE OF SPECIES: DECEMBER 17, 1989

Type of species 1/	Number of species	Number of individuals
All species	48	25,405
Endemic	7	321
Indigenous	8	1,542
Introduced	27	21,605
Migratory	6	1,937

1/ For definitions, see preceding table, footnote 1.
Source: Hawaii Audubon Society, records.

Table 169.-- TREES ALONG STREETS OR IN PARKS UNDER THE JURISDICTION OF THE CITY AND COUNTY OF HONOLULU: 1985 TO 1989

[As of June 30]

Location	1985	1986	1987	1988	1989
Along City and County streets and highways 1/	118,437	120,029	121,100	122,253	123,533
In City and County parks	96,727	96,896	97,101	97,434	97,672

1/ Excludes Federal, State, and private thoroughfares.
Source: City and County of Honolulu, Department of Parks and Recreation, records.

Table 170.-- THREATENED, ENDANGERED, AND EXTINCT SPECIES OF NATIVE FAUNA AND FLORA: JANUARY 1989

Type of fauna or flora	Native species	Candidate 1/	Threatened 1/	Endangered 1/	Extinct 2/
Land mammals	1	-	-	1	-
Marine mammals	18	-	-	8	-
Reptiles and amphibians ..	5	-	3	2	-
Birds	87	-	1	29	23
Freshwater fish	6	1	-	-	-
Invertebrates	(3/)	150	-	1	4/ 88
Plants	2,734	787	-	19	4/ 100

1/ Categories of the Federal List of Endangered and Threatened Species, as published in the Federal Register. Candidate species are those being officially considered for listing as threatened or endangered.

2/ Since 1778.

3/ Not known, but nearly 10,000 native species of insects and more than 1,000 native species of land snails have been estimated.

4/ Incomplete and probably much higher.

Source: U.S. Department of the Interior, Fish and Wildlife Service, Endangered and Threatened Wildlife and Plants (January 1989); P. Q. Tomich, Mammals in Hawaii (1969); Robert L. Pyle, "Checklist of Birds of Hawaii," The 'Elepaio, November 1983; correspondence from W. C. Gagne, Entomology Department, Bishop Museum, July 3, 1985; H. St. John, List and Summary of the Flowering Plants in the Hawaiian Islands (1973), p. 519; University of Hawaii Department of Geography, Atlas of Hawaii (1983), pp. 80 and 83.

Section 6

LAND USE AND OWNERSHIP

General statistics on the use, ownership, and tenure of land appear in this section. Information on specific use or ownership categories is given elsewhere: parks in Section 7, military land in Section 10, agriculture in Section 19, forests in Section 20, and cane land in Section 22.

Out of the 4,112,000 acres in the State in 1982, 333,000 were in cropland and 974,000 in pastureland. Other major categories included forestland, with 1,473,000 acres, urban and built-up, with 126,000, and miscellaneous nonfarm, with 852,000. On Oahu, land in residential use increased from 22,600 acres in 1969 to 29,200 in 1989; during the same 20-year span, agricultural land declined from 88,900 to 74,200 acres. For the State as a whole, the Land Use Commission has zoned 175,000 acres as urban, 1,961,000 as conservation, 1,966,000 as agricultural, and 10,000 as rural.

Recent data on land ownership indicate that the Federal government owns 8.4 percent of all land, the State and counties own 29.8 percent, and private owners (chiefly large estates) have 61.8 percent. Total Federal holdings reported by the General Services Administration in 1988 came to 673,000 acres, exclusive of leased land (7,400 acres); most of the Federal land was in wildlife, park and military use. The State Department of Hawaiian Home Lands holds about 187,000 acres, divided among 5,800 lessees. Total land parcels in the State as of 1990 numbered 424,000.

Considerable caution is necessary in comparing statistics from different sources on land use, ownership, or tenure. Variations in definitions and survey dates seriously affect comparability in many instances, even where terminology is relatively unambiguous and misinterpretation seems unlikely. An example of such difficulties is the wide range in estimates of Federal land, with totals ranging from 338,000 acres to 673,000.

Tabulations by the U.S. Department of Agriculture and General Services Administration, Hawaii State Department of Hawaiian Home Lands, Department of Land and Natural Resources, Department of Business, Economic Development & Tourism, and Land Use Commission, Honolulu Department of Finance, and Honolulu Department of General Planning provided the data for this section. Historical Statistics of Hawaii, Section 12, contains limited information for earlier years. Statistics for the nation as a whole are available in Sections 6, 7, 10, 23, and 24 of the Statistical Abstract of the United States: 1990.

Table 171.-- LAND OWNERSHIP, COVER, OR USE AND TYPES OF WATER AREAS, BY COUNTIES: 1982

[1,000 acres]

Category	State total 1/	City and County of Honolulu 1/	Other counties		
			Hawaii	Kauai	Maui 2/
Total area	4,141.3	397.2	2,582.5	403.0	758.6
Federal land	341.5	51.1	231.9	2.6	55.9
Nonfederal land	3,770.6	330.6	2,349.9	394.0	696.1
Rural land	3,609.6	268.0	2,288.7	379.0	673.9
Cropland	333.2	74.6	85.2	82.3	91.1
Pastureland	974.0	78.1	621.7	48.8	225.4
Rangeland	0.0	0.0	0.0	0.0	0.0
Forest land	1,473.5	104.3	891.7	230.7	246.8
Minor land cover/uses 3/	828.9	11.0	690.1	17.2	110.6
Urban and built-up land	125.9	56.9	42.2	9.8	17.0
Rural transportation	22.8	4.7	10.3	3.1	4.7
Small water areas	12.3	1.0	8.7	2.1	0.5
Water bodies 4/	2.2	0.5	1.3	0.3	0.1
Perennial streams 5/	10.1	0.5	7.4	1.8	0.4
Census water 6/	29.2	15.5	0.7	6.4	6.6

1/ Excludes the Northwestern Hawaiian Islands, legally part of the City and County of Honolulu.

2/ Includes Kalawao County.

3/ Includes farmsteads and ranch headquarters (State total, 3.5), other land in farms (5.6), mines, quarries, and pits (0.0), small built-up areas (2.2), and other rural lands (817.6, of which 637.7 were in Hawaii County).

4/ Includes a State total of 0.8 in bodies less than 2 acres and 1.4 in bodies of 2 to 40 acres.

5/ Includes a State total of 4.1 in streams less than 66 feet wide and 6.0 in streams 66 to 660 feet wide.

6/ Larger water bodies not included in land area totals, as measured by the Bureau of the Census (Pearl Harbor, Kaneohe Bay, etc.).

Source: U.S. Department of Agriculture, Soil Conservation Service, 1982 National Resources Inventory, tables 1c, 2c, 7c, and 8c for Hawaii (unpublished).

Table 172.-- LAND USE AND STRUCTURAL CHARACTERISTICS OF OAHU: 1987 AND 1989

Subject	Dec. 1987: Oahu total	June 1989		
		Oahu total	Honolulu district	Rest of Oahu
LAND USE (IN ACRES)				
All existing uses	375,476	375,455	54,140	321,315
Single family	26,182	26,514	8,456	18,058
Multi-family	2,633	2,705	1,109	1,596
Industrial	10,326	11,865	4,161	7,704
Commercial	4,383	4,404	1,796	2,808
Hotel	301	301	129	172
Agriculture	76,842	74,229	302	73,927
Usable vacant	36,684	38,218	2,740	35,479
Other	218,125	217,218	35,449	181,770
STRUCTURES BY YEAR BUILT 1/				
All structures	149,086	151,105	63,833	87,272
Before 1930	7,951	7,668	5,839	1,829
1930 to 1939	9,482	9,296	5,900	3,396
1940 to 1949	15,834	15,548	8,900	6,648
1950 to 1959	30,543	30,314	14,618	15,696
1960 to 1969	41,513	41,366	15,659	25,707
1970 to 1979	28,253	28,210	8,187	20,023
1980 and later	15,510	18,703	4,730	13,973
DWELLING UNITS BY TYPE 1/				
All dwelling units	258,823	263,203	147,436	115,767
Single family and duplex	137,892	139,904	56,991	82,913
Low density multi-family	13,482	13,592	1,015	12,577
High density multi-family	107,449	109,707	89,430	20,277

1/ Data exclude structures on military bases.

Source: City and County of Honolulu, Department of General Planning, records.

Table 173.-- LAND PARCELS, BY COUNTIES: 1985 TO 1990

[As of January 1]

Year	State total	City and County of Honolulu	County of Maui	County of Hawaii	County of Kauai
1985	398,148	208,466	47,076	120,177	22,429
1986	404,018	212,868	47,321	121,349	22,480
1987	409,069	215,207	48,568	122,180	23,114
1988	412,862	217,971	48,863	122,788	23,240
1989	417,875	220,763	49,765	123,801	23,546
1990	424,111	224,339	50,966	124,902	23,904

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, State of Hawaii (annual).

Table 174.-- CEMETERIES, CHURCHES, HOSPITALS, AND SCHOOLS, BY COUNTIES: 1990

[Privately-owned parcels exempt from real property taxes]

Category	State total	Honolulu	Maui	Hawaii	Kauai
Cemeteries	110	48	6	49	7
Churches	1,400	789	205	274	132
Hospitals	81	67	11	-	3
Schools	146	102	8	33	3

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates & Exemptions, 1990-1991 Tax Year, State of Hawaii (July 1990), p. 6.

Table 175.-- ACREAGE OF LAND USE CLASSES, BY COUNTIES: JUNE 1989

[Based on land use classifications used for real property assessment purposes. Data exclude public streets and highways and other areas not in parcels of record. For unknown reasons, totals in this table differ significantly from the corresponding 1988 figures in Data Book 1988, table 184]

Land use class 1/	State total	City and County of Honolulu	County of Maui	County of Hawaii	County of Kauai
All uses 2/	4,029,908	372,027	748,668	2,513,392	395,820
Improved residential ...	63,687	40,470	6,608	12,311	4,298
Apartment	5,908	2,279	1,082	1,888	659
Commercial	9,967	7,266	885	1,263	554
Industrial	20,231	10,662	1,782	6,474	1,313
Agricultural	1,924,606	129,974	403,897	1,187,852	202,883
Conservation	1,955,082	160,822	327,983	1,285,319	181,018
Hotel and resort	2,827	255	1,250	557	764
Unimproved residential .	47,600	20,299	5,240	17,729	4,332

1/ Based on "Pitt codes" as established by the "Pittsburgh Law" of differential tax rates for real property assessment and taxation as specified in Sec. 246-10, Hawaii Revised Statutes, 1985 Replacement.

2/ Because of excluded categories, these totals differ from figures for total area shown elsewhere in the Data Book.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, records.

Table 176.-- ESTIMATED ACREAGE OF LAND USE DISTRICTS: 1964 TO 1990

[Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised Statutes, as amended. All data are approximate]

Year and month	Total area 1/	Classification by State Land Use Commission 2/			
		Urban	Conservation	Agricultural	Rural
UNADJUSTED 3/					
1964: August ...	4,111,500	117,800	1,862,600	2,124,400	6,700
1969: August ...	4,111,500	140,163	2,009,087	1,955,875	6,375
1974: March	4,111,500	147,472	1,986,429	1,968,727	8,872
1979: January ..	4,111,500	151,929	1,976,106	1,974,230	9,235
1980: January ..	4,111,500	152,199	1,975,865	1,974,196	9,240
1981: January ..	4,111,500	154,319	1,975,836	1,972,104	9,241
1982: January ..	4,111,500	154,726	1,975,672	1,971,886	9,216
1983: January ..	4,112,388	156,413	1,975,473	1,971,279	9,223
1984: January ..	4,112,388	156,568	1,975,473	1,970,146	10,201
1985: January ..	4,112,388	158,620	1,969,351	1,974,236	10,181
1986: January ..	4,112,388	163,211	1,968,804	1,970,189	10,184
1987: January ..	4,112,388	165,165	1,967,638	1,969,401	10,184
1988: January ..	4,112,388	166,507	1,967,168	1,968,524	10,189
ADJUSTED 3/					
1988: January ..	4,112,388	165,607	1,967,247	1,969,345	10,189
1989: January 4/	4,112,388	171,230	1,967,194	1,963,766	10,198
1990: January ..	4,112,388	175,285	1,960,976	1,965,935	10,192

1/ These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census, cited in Section 5. The increase in the 1983 total area reflects additions to the Urban District on Oahu at Honolulu International Airport (Reef runway and South Ramp refill) created from former submerged lands.

2/ For definitions, see Hawaii Revised Statutes, 1985 Replacement, Section 205-2.

3/ For changes in classification resulting from court decisions on past Commission actions.

4/ Revised.

Source: Hawaii State Department of Business and Economic Development, Land Use Commission, records.

Table 177.-- ESTIMATED ACREAGE OF LAND USE DISTRICTS, BY ISLANDS: JANUARY 1989 AND 1990

[Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised Statutes, as amended. All data are approximate]

Year and month	Total area 1/	Classification by State Land Use Commission 2/			
		Urban	Conservation	Agricultural	Rural
1989 (revised)					
State total	4,112,388	171,230	1,967,194	1,963,766	10,198
Hawaii	2,573,400	44,225	1,300,883	1,227,666	626
Maui	465,800	17,188	193,626	251,239	3,747
Kahoolawe	28,800	-	28,800	-	-
Lanai	90,500	2,338	38,203	47,239	2,720
Molokai	165,800	2,503	49,768	111,657	1,872
Oahu	386,188	92,585	154,882	138,721	-
Kauai	353,900	12,391	198,732	141,544	1,233
Niihau	45,700	-	-	45,700	-
Kaula and Lehua	400	-	400	-	-
Other islands 3/	1,900	-	1,900	-	-
1990					
State total	4,112,388	175,285	1,960,976	1,965,935	10,192
Hawaii	2,573,400	45,767	1,294,701	1,232,306	626
Maui	465,800	18,020	193,626	250,407	3,747
Kahoolawe	28,800	-	28,800	-	-
Lanai	90,500	2,338	38,203	47,239	2,720
Molokai	165,800	2,509	49,768	111,657	1,866
Oahu	386,188	93,675	154,846	137,667	-
Kauai	353,900	12,976	198,732	140,959	1,233
Niihau	45,700	-	-	45,700	-
Kaula and Lehua	400	-	400	-	-
Other islands 3/	1,900	-	1,900	-	-

1/ These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census, cited in Section 5.

2/ For definitions, see Hawaii Revised Statutes, 1985 Replacement, Section 205-2.

3/ The Northwestern Hawaiian Islands, from Nihoa to Kure Atoll, excluding Midway.

Source: Hawaii State Department of Business and Economic Development, Land Use Commission, records.

Table 178.-- LAND OWNERSHIP OR TENURE, BY ISLANDS: FALL 1988

[In acres. Government land leased to private users is included with privately owned land]

Island	All land 1/	Land owned by government 2/			Privately owned land
		Federal	State	Counties	
State total 3/ ..	4,035,601	338,035	1,188,242	14,898	2,494,426
Percent	100.0	8.4	29.4	0.4	61.8
Hawaii	2,497,055	229,848	817,391	1,278	1,448,537
Maui	448,170	26,875	102,345	1,568	317,381
Kahoolawe	28,800	28,800	-	-	-
Molokini	19	19	-	-	-
Lanai	88,985	5	124	14	88,843
Molokai	170,910	211	47,601	265	122,831
Oahu	403,134	48,861	69,541	11,162	273,590
Kauai	351,292	3,158	150,984	610	196,540
Niihau	46,705	-	-	-	46,705
Lehua and Kaula	512	256	256	-	-

1/ Because of the omission of public thoroughfares and for other reasons, totals by island may differ considerably from official area estimates in other tables in this volume.

2/ State land ceded by presidential proclamation or governor's executive order to the federal government appears in most cases to have been classified for this table as federal land, even though title to it technically remains with the state. Land ceded by the state to the counties, in contrast, has probably been classified as state land. For both types of ceded land, treatment may have varied from parcel to parcel.

3/ Data exclude the Northwestern Hawaiian Islands (1,722 acres).

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, records. Tabulation by State Department of Business and Economic Development.

Table 179.-- LAND IN HAWAII OWNED BY LARGE AND SMALL LANDOWNERS: 1987, 1988, AND 1989

Ownership	1987	1988	1989
Land area of State (acres) 1/	3,930,143	4,035,601	4,035,601
Owned by government 1/	1,414,750	1,541,175	1,541,175
Owned privately 1/	2,515,393	2,494,426	2,494,426
Six large owners 2/	935,560	912,853	909,006
Bernice P. Bishop Estate 3/	340,454	339,197	338,414
Richard S. Smart (Parker Ranch) 4/	139,301	139,301	139,301
Castle and Cooke, Inc. 5/	148,580	129,220	129,125
C. Brewer and Company, Ltd. 5/	91,501	90,689	88,606
Samuel M. Damon Estate 5/	121,599	121,598	121,608
Alexander and Baldwin, Inc. 5/	94,125	92,848	91,952
All others	1,579,833	1,581,573	1,585,420
Percent of total land area	100.0	100.0	100.0
Owned by government	36.0	38.2	38.2
Owned privately	64.0	61.8	61.8
Six large owners	23.8	22.6	22.5
All others	40.2	39.2	39.3
Percent of privately owned land	100.0	100.0	100.0
Six large owners	37.2	36.6	36.4
All others	62.8	63.4	63.6

1/ Fall data. Not surveyed in 1989, and 1988 amount has been repeated. Because of the omission of public thoroughfares and for other reasons, the State total may vary from year to year and also may differ from official area estimates in other tables of this volume.

2/ Some of these figures are not exact accountings but are the landowners' best estimates.

3/ As of June 30.

4/ As of December 31. The total size of the Parker Ranch, including leased land, was 225,000 acres during this period.

5/ As of December 31.

Source: State total, government total, and private total from The State of Hawaii Data Book 1988, table 187; six large owners from DBED surveys of those owners; all other owners calculated as a residual.

Table 180.-- REAL PROPERTY OWNED BY OR LEASED TO THE FEDERAL GOVERNMENT: 1986 TO 1988

Subject	Sept. 30, 1986	Sept. 30, 1987	Sept. 30, 1988 1/
OWNED			
Number of installations	311	317	(NA)
Land area, total (acres)	687,041.5	673,845.8	673,464.2
Urban	61,673.1	53,486.3	(NA)
Rural	625,368.4	620,359.5	(NA)
Number of buildings	15,651	10,705	(NA)
Cost, total ($1,000) 2/	2,240,010	2,217,625	(NA)
Land	170,266	163,426	(NA)
Buildings	1,282,653	1,250,462	(NA)
Structures and facilities	787,091	803,737	(NA)
Predominant usage (acres):			
Agriculture and grazing	-	-	(NA)
Forest and wildlife	267,189.5	267,189.5	(NA)
Parks and historic sites	245,110.1	245,110.1	(NA)
Power development and distribution	-	-	(NA)
Military, excluding airfields	112,671.6	108,727.9	(NA)
Airfields	10,420.4	6,412.2	(NA)
Harbor and port facilities	23.6	23.6	(NA)
Reclamation and irrigation	-	-	(NA)
Office building locations	54.9	56.8	(NA)
Flood control and navigation	1,424.2	1,424.2	(NA)
Vacant	3.0	3.0	(NA)
Institutional	358.0	358.0	(NA)
Housing	87.4	87.4	(NA)
Storage	926.1	926.1	(NA)
Industrial	9,173.0	3,576.6	(NA)
Research and development	8.0	360.2	(NA)
Other land	39,591.7	39,590.2	(NA)
LEASED			
Number of leases	303	248	263
Land area, total (acres)	9,420.5	9,416.5	7,418.9
Urban	313.2	309.2	309.7
Rural	9,107.3	9,107.3	7,109.2
Number of building locations	187	172	182
Floor area of buildings (sq. ft.)	426,642	408,382	548,240
Annual rental ($1,000)	3,079	3,383	4,377

Footnote and source on next page.

Table 180.-- REAL PROPERTY OWNED BY OR LEASED TO THE FEDERAL GOVERNMENT: 1986 TO 1988 -- Con.

NA Not available.

1/ Corrected from published data (284,719.5 acres reported owned).

2/ At time of acquisition. Includes estimated equivalent cost of properties acquired through donation, exchange, devise, forfeiture, or judicial process.

Source: U.S. General Services Administration, Summary Report of Real Property Owned by the United States Throughout the World (annual) and Summary Report of Real Property Leased by the United States Throughout the World (annual); GSA letter to DBED dated August 1, 1990.

Table 181.-- DEPARTMENT OF HAWAIIAN HOME LANDS ACREAGE, LESSEES, AND APPLICANTS, BY ISLANDS: JUNE 30, 1989

[The Department of Hawaiian Home Lands administers land set aside for the benefit of qualified native Hawaiians, who receive homestead leases and financial assistance from the Department]

Island	Acreage		Homestead leases		Applicant waiting list	
	Total	In homestead use	Total 1/	Residential	Total 1/	Residential
State total ..	187,413	32,713	5,778	4,592	18,766	11,289
Hawaii	107,883	20,943	1,547	1,017	6,913	3,314
Maui	28,995	541	560	492	3,715	1,852
Molokai	25,366	9,477	795	319	1,047	515
Oahu	6,600	921	2,429	2,365	5,098	4,638
Kauai	18,569	831	447	399	1,993	970

1/ Residence, agriculture, or pasture.

Source: Hawaii State Department of Hawaiian Home Lands, Annual Report 1989, pp. 12 and 16.

Table 182.-- STATE PUBLIC AND SET-ASIDE LAND INVENTORY, BY COUNTIES: APRIL 3, 1990

[In thousands of acres]

Type of document	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
All types	1,415.6	68.8	980.1	155.4	211.4
Public lands	423.8	16.1	326.9	38.1	42.6
General lease 1/	226.3	4.5	186.5	23.2	11.9
Revocable permit 2/	107.7	1.9	71.6	11.9	22.3
Unencumbered lands 3/...	89.8	9.7	68.7	3.0	8.4
Lands set aside to other government agencies	781.0	42.4	536.5	96.5	105.6
Executive order	258.5	13.3	196.2	23.9	25.2
Governor's proclamation	522.5	29.2	340.3	72.7	80.4
Dept. of Hawaiian Home Lands	191.6	4.8	107.8	19.0	60.0
University of Hawaii	1.8	0.7	0.5	0.4	0.1
Hawaii Housing Authority .	1.5	1.2	0.1	0.0	0.1
Highways and roads	15.9	3.5	8.2	1.2	2.9

1/ Long-term leases. Mostly agricultural and pasture land. Includes land covered by water licenses not set aside to other government agencies.

2/ Month-to-month leases. Mostly agricultural and pasture land. Includes land licenses.

3/ Parcels with no documents and not in use.

Source: Hawaii State Department of Land and Natural Resources, Land Management Division, records.

Section 7

RECREATION AND TRAVEL

Statistics on tourism, recreation, sports, museums, parks, pets, and the performing arts appear in this section. Additional information on recreational and resort land use is given in Section 6; on transportation, in Section 18; and on hotels and hotel workers, in Sections 12, 13, 15 and 23.

Approximately 6,642,000 visitors stayed overnight or longer in Hawaii during 1989, compared with 3,961,000 in 1979 and only 1,527,000 in 1969. The average number present at any given time during 1989 was 170,000. Total visitor expenditures (exclusive of trans-Pacific fares) in 1989 were estimated by the Hawaii Visitors Bureau at $10.9 billion, compared with $2.5 billion a decade earlier. The 1989 visitor total included 4.3 million from other States, 353,000 from Canada, and 1,319,000 from Japan. Expenditures per visitor day in 1989 averaged $127 for westbound visitors and $589 for the Japanese. Visitor-related spending in 1987 resulted in tax revenues of $831 million and generated 213,000 jobs.

Both visitors and residents have access to a wide range of recreational and cultural facilities. The State has seven national parks and similar areas, 77 State parks, 575 county parks, 61 golf courses, 282 public tennis courts, 2,100 small-boat moorages, 1,600 recognized surfing sites, and 24.4 miles of safe, sandy, accessible beach. Recreational, scenic and cultural facilities reporting more than two million annual visits each in 1989 included Waikiki Beach, the National Memorial Cemetery of the Pacific, Wailua River State Park, Hanauma Bay, and Hawaii Volcanoes National Park. Total visits to 73 museums, State monuments, zoos, and similar attractions in 1989 numbered 19.4 million. About 479,000 Hawaii residents traveled to the Mainland or abroad in 1989. Twelve theatrical groups on Oahu reported 1,545 performances of 382 productions for the 1988-1989 season, with a combined audience of 1.15 million. During the 1988-1989 season, the Honolulu Symphony Orchestra gave 134 concerts, with a total attendance of 216,000. During the 1989-1990 school year, attendance at UH-Manoa varsity baseball, basketball, football and volleyball home games was 718,000.

Information on recreation and tourism is issued periodically by the Hawaii Visitors Bureau (particularly in its annual research reports), the State Parks Division of the Department of Land and Natural Resources, the Hawaii State Department of Business, Economic Development & Tourism, U.S. National Park Service, County park and recreation departments, and other organizations. Long-term trends are summarized in Historical Statistics of Hawaii, Section 11. National statistics are given in Section 7 of Statistical Abstract of the United States: 1990.

Table 183.-- PASSENGERS ARRIVING, BY DIRECTION OF TRAVEL AND TRANSIT STATUS: 1980 TO 1989

Direction and status	1980	1981	1982	1983	1984
All directions ..	5,380,383	5,305,809	5,580,240	5,546,540	6,107,730
Landing	4,172,640	4,211,250	4,582,020	4,653,450	5,242,770
Intransit	1,207,743	1,094,559	998,220	893,090	864,960
Westbound 1/	3,861,059	3,780,383	4,078,360	4,098,720	4,543,890
Landing	3,257,853	3,223,653	3,589,625	3,654,560	4,082,070
Intransit	603,206	556,730	488,735	444,160	461,820
Eastbound 2/	1,519,324	1,525,426	1,501,880	1,447,820	1,563,840
Landing	914,787	987,597	992,390	998,890	1,160,700
Intransit	604,537	537,829	509,490	448,930	403,140

Direction and status	1985	1986	1987	1988	1989
All directions ..	6,314,290	7,063,710	7,324,280	7,894,680	8,236,250
Landing	5,338,170	6,068,990	6,248,550	6,715,600	7,149,700
Intransit	976,120	994,720	1,075,730	1,179,080	1,086,550
Westbound 1/	4,675,690	5,245,690	5,214,520	5,443,980	5,734,910
Landing	4,137,830	4,689,480	4,617,230	4,793,580	5,115,410
Intransit	537,860	556,210	597,290	650,400	619,500
Eastbound 2/	1,638,600	1,818,020	2,109,760	2,450,700	2,501,340
Landing	1,200,340	1,379,510	1,631,320	1,922,020	2,034,290
Intransit	438,260	438,510	478,440	528,680	467,050

1/ Arriving from North America.

2/ Arriving from Asia or Oceania.

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, p. 5, and records.

Table 184.-- RESIDENCE STATUS OF WESTBOUND PASSENGERS ARRIVING IN HAWAII: 1984 TO 1989

[Based on a 10-percent sample from Jan. 1984 through Dec. 1988, a 5-percent sample from Jan. 1989 through July 1989, and a 25-percent sample beginning August 1989]

Year	All westbound passengers	Visitors destined to Hawaii	Visitors destined beyond Hawaii		Returning residents	Intended residents
			Overnight or longer	In transit		
1984 ...	4,543,890	3,385,880	335,500	461,820	333,640	27,050
1985 ...	4,675,690	3,386,530	322,080	537,860	403,450	25,770
1986 ...	5,245,690	3,915,770	340,620	556,210	411,440	21,650
1987 ...	5,214,520	3,868,880	335,130	597,290	398,580	14,640
1988 ...	5,443,980	3,903,640	361,090	650,400	521,000	7,850
1989 ...	5,734,910	4,415,350	289,970	619,500	394,080	16,010

Source: Hawaii Visitors Bureau, Market Research Department, records.

Table 185.-- WESTBOUND PARTIES, BY VISITOR STATUS: 1987 AND 1989

Year	All surveyed parties	Visitors destined --		Returning residents	Intended residents
		To Hawaii	Beyond Hawaii		
1987 ..	2,626,140	2,133,280	208,410	275,590	8,860
1988 ..	2,719,110	2,136,630	219,300	357,780	5,400
1989 ..	2,232,200	1,919,710	126,080	179,130	7,280

Source: Hawaii Visitors Bureau, *1988 Westbound Visitors to Hawaii*, p. 8.

Table 186.-- VISITOR ARRIVALS AND AVERAGE VISITOR CENSUS: 1964 TO 1989

[For earlier years, 1921-1963, see Data Book 1987, table 210]

Year	Visitors staying overnight or longer			Average number of visitors present		
	Total	West-bound 1/	Other	Total	West-bound 1/	Other
1964	563,925	460,290	103,635	16,037	14,901	1,136
1965	686,928	567,218	119,710	17,369	16,057	1,312
1966	835,456	686,886	148,570	20,918	19,271	1,647
1967	1,124,818	893,103	231,715	27,630	24,898	2,732
1968	1,314,571	1,015,844	298,727	32,335	28,784	3,551
1969	1,527,012	1,181,029	345,983	37,198	33,088	4,110
1970	1,746,970	1,326,135	420,835	36,943	32,028	4,915
1971	1,818,944	1,430,325	388,619	40,889	36,504	4,385
1972	2,244,377	1,782,737	461,640	50,143	45,098	5,045
1973	2,630,952	2,067,861	563,091	59,578	53,407	6,171
1974	2,786,489	2,184,620	601,869	63,535	56,939	6,596
1975	2,829,105	2,207,417	621,688	66,308	59,495	6,813
1976	3,220,151	2,551,601	668,550	75,532	68,225	7,307
1977	3,433,667	2,763,312	670,355	83,030	75,684	7,346
1978	3,670,309	3,030,999	639,310	92,034	85,028	7,006
1979	3,960,531	3,139,455	821,076	98,676	89,678	8,998
1980	3,934,504	3,046,132	888,372	96,497	86,788	9,709
1981	3,934,623	2,974,791	959,832	95,968	85,449	10,519
1982	4,242,925	3,278,525	964,400	105,310	94,740	10,570
1983	4,368,105	3,396,115	971,990	108,045	97,395	10,650
1984	4,855,580	3,721,380	1,134,200	118,660	106,260	12,400
1985	4,884,110	3,708,610	1,175,500	116,700	103,820	12,880
1986	5,606,980	4,256,390	1,350,590	132,910	118,110	14,800
1987	5,799,830	4,204,010	1,595,820	134,270	116,780	17,490
1988	6,142,420	4,264,730	1,877,690	141,410	115,760	25,650
1989	6,641,820	4,705,320	1,936,500	169,670	135,480	34,190

1/ Arriving from the Mainland United States or Canada.

Source: Hawaii Visitors Bureau, Annual Research Report (annual) and records.

Table 187.-- RESIDENCE OF OVERNIGHT AND LONGER VISITORS TO HAWAII: 1989

Country of residence	Total	Westbound	Eastbound
All visitors	6,641,820	4,705,320	1,936,500
United States	4,294,250	3,991,550	302,700
Canada	352,860	264,380	88,480
Asia	1,484,010	126,390	1,357,620
Japan	1,319,340	83,510	1,235,830
Taiwan	43,870	5,540	38,330
Korea	38,330	12,090	26,240
Hong Kong	19,330	7,670	11,660
China	13,870	300	13,570
Philippines	8,290	3,660	4,630
Singapore	15,710	6,790	8,920
Indonesia	8,000	3,260	4,740
Other Asia	17,270	3,570	13,700
South Pacific	288,460	178,010	110,450
Australia	186,540	117,160	69,380
New Zealand	91,280	56,870	34,410
Other South Pacific	10,640	3,980	6,660
Europe	205,030	135,460	69,570
United Kingdom	94,860	59,470	35,390
West Germany	41,900	29,220	12,680
Other Europe	68,270	46,770	21,500
Other foreign countries	17,210	9,530	7,680

Source: Hawaii Visitors Bureau, "Summary of 1989 Visitor Statistics" (release, March 19, 1990).

Table 188.-- VISITOR DAYS, BY DIRECTION OF TRAVEL: 1988 AND 1989

Year	Total	Westbound	Eastbound and northbound
1988	51,756,610	42,368,160	9,388,450
1989	58,588,970	46,582,670	12,006,300

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, p. 6, and records.

Table 189.-- AVERAGE VISITOR CENSUS, BY COUNTIES AND ISLANDS: 1986 TO 1989

[Before 1989, all eastbound and northbound visitor-days were allocated to Oahu]

County or island	1986	1987	1988	1989		
				Total	West-bound	Other 1/
State total ..	132,910	134,270	141,410	169,670	135,480	34,190
Oahu	73,870	74,660	80,450	88,750	61,480	27,270
Hawaii County	9,870	10,210	10,690	17,760	15,560	2,200
Kauai County	14,840	15,510	16,400	19,140	18,090	1,050
Maui County	34,330	33,890	33,870	44,020	40,350	3,670
Lanai	(NA)	(NA)	(NA)	240	210	30
Maui	(NA)	(NA)	(NA)	42,690	39,240	3,450
Molokai	(NA)	(NA)	(NA)	1,090	900	190

NA Not available.

1/ Eastbound and northbound. Distribution by island based on data for fourth quarter.

Source: Hawaii Visitors Bureau, Westbound Visitors to Hawaii (annual), release data March 1989, and records.

Table 190.-- WESTBOUND VISITOR ARRIVALS, 1987 TO 1989, AND EASTBOUND AND NORTHBOUND VISITOR ARRIVALS, 1989, BY AREAS VISITED

[Covers visitors staying overnight or longer anywhere in the State, and any overnight or non-overnight interisland trips reported by these visitors]

Areas visited	All visitors: 1989	Westbound visitors			Other visitors: 1989 1/
		1987	1988	1989	
State total 2/ ..	6,641,820	4,204,010	4,264,730	4,705,320	1,936,500
Oahu	5,049,350	3,078,500	3,013,850	3,205,800	1,843,550
Kauai	1,291,210	1,032,840	1,043,710	1,138,230	152,980
Maui County 2/	2,513,960	1,908,780	1,884,050	2,113,100	400,860
Maui	2,468,870	(NA)	(NA)	2,075,760	393,110
Molokai	101,510	(NA)	(NA)	86,020	15,490
Lanai	46,790	(NA)	(NA)	42,920	3,870
Hawaii County 2/	1,120,830	782,550	782,360	946,540	174,290
Kona side	999,140	(NA)	(NA)	857,770	141,370
Hilo side	367,150	(NA)	(NA)	303,240	63,910
One island only	4,184,080	(NA)	(NA)	2,795,610	1,388,470
Oahu only	2,900,470	1,473,390	1,499,060	1,595,270	1,305,200

1/ Eastbound or northbound. Distribution by areas visited based on data for fourth quarter only.

2/ Because many visitors visited more than one area, detail sums to more than the totals and subtotals shown here.

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii (1989), p. 18, and "Summary of 1989 Visitor Statistics" (release, March 19, 1990).

Table 191.-- SUMMARY CHARACTERISTICS OF OVERNIGHT AND LONGER WESTBOUND VISITORS: 1979 TO 1989

Subject	Destined to Hawaii 1/		Destined to or beyond Hawaii	
	1979	1988	1988	1989
Residence (percent):				
Pacific and Mountain States	43.1	45.7	42.2	51.7
California	25.7	29.7	27.4	34.0
Males per 1,000 females	823	850	870	908
Median age (years)	41.7	40.1	39.8	37.3
High-status occupations 2/ (percent)	60.1	65.1	64.6	68.2
Persons per party 3/	1.8	1.8	1.8	2.3
Arriving June-August (percent)	27.0	26.7	26.8	27.6
Repeat visitors 4/ (percent)	44.1	52.0	51.3	53.9
Pleasure trip (percent)	76.7	84.3	84.7	84.1
In hotel 5/ (percent)	74.4	59.4	61.4	58.6
Average stay (days)	11.2	10.4	9.9	9.9
Percent destined beyond Hawaii	...	...	8.5	6.2

1/ For 1980-1987, see Data Book 1989, table 190.

2/ Calculated as the number of professional, technical, business, managerial and official party heads as a percent of all party heads responding to this question.

3/ Increase after 1988 may reflect revised editing procedures. Nonresponse on the party size question before 1989 was apparently imputed as 1 rather than distributed.

4/ Party heads only for 1979 and 1988; for 1989, includes other party members, assumed same as their party heads.

5/ For 1979, hotel or apartment-hotel; for 1988 and 1989, hotel only.

Source: Hawaii Visitors Bureau, 1979 Annual Research Report; 1988 Westbound Visitors to Hawaii; and records.

Table 192.-- DEMOGRAPHIC CHARACTERISTICS OF WESTBOUND VISITORS: 1987 TO 1989

[Data limited to visitors staying overnight or longer. Combined data for visitors to or beyond Hawaii, reported separately in previous editions]

Subject	1987	1988	1989
All visitors	4,204,010	4,264,730	4,705,320
Age:			
Under 10 years	111,330	105,950	352,270
10 to 19 years	296,810	293,500	594,220
20 to 29 years	719,880	758,120	687,680
30 to 39 years	828,800	871,600	979,130
40 to 49 years	789,790	846,440	1,045,890
50 to 59 years	583,520	574,000	546,900
60 years and over	608,980	568,040	498,870
Age not reported	264,900	247,080	360
Sex:			
Male	1,930,050	1,984,590	2,238,610
Female	2,273,960	2,280,140	2,466,710
Residence (census divisions):			
Pacific	1,521,270	1,539,830	1,754,190
Alaska	51,230	47,780	46,140
California	1,136,400	1,170,640	1,357,460
Oregon	106,480	100,490	110,100
Washington	227,160	220,920	240,490
Mountain	279,670	259,510	308,540
West North Central	214,560	204,540	222,810
West South Central	209,300	212,170	221,740
East North Central	437,910	426,840	461,360
East South Central	89,540	85,340	88,410
New England	147,150	148,170	162,970
Middle Atlantic	354,560	362,830	394,470
South Atlantic	323,870	319,540	370,690
U.S. territories	2,670	1,900	5,180
Canada	216,050	229,440	264,380
Other foreign	407,460	474,620	449,390
Residence not reported	-	-	1,190

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, pp. 10-13, and records.

Table 193.-- TRIP CHARACTERISTICS OF WESTBOUND VISITORS: 1987 TO 1989

[Data limited to visitors staying overnight or longer. Combined data for visitors to or beyond Hawaii, reported separately in previous editions]

Subject	1987	1988	1989
All visitors	4,204,010	4,264,730	4,705,320
Purpose of trip: 1/			
Pleasure	3,436,500	3,591,110	3,942,400
Convention/conference	96,370	166,750	280,610
Corporate meeting	(NA)	36,380	61,090
Incentive	(NA)	20,070	39,810
Other business	500,870	243,930	166,300
Visit friends & relatives	115,840	131,960	245,440
Government/military	23,030	25,200	46,100
Attend school	1,930	2,080	5,180
Other	8,690	24,120	78,180
No answer	20,780	23,130	19,980
Traveler status:			
Organized tour group	554,660	593,020	684,420
Individual basis	3,342,740	3,556,230	3,980,980
Incentive	194,680	(NA)	(NA)
Government/military	23,310	(NA)	(NA)
No answer	88,620	115,480	39,920
Intended accommodations: 1/			
Hotel (net)	(NA)	(NA)	3,351,150
Hotel only	2,473,610	2,611,620	2,752,770
Condo (net)	(NA)	(NA)	1,389,120
Condo only	853,430	834,120	878,170
Cruise ship	(NA)	(NA)	96,410
Friends or relatives	313,580	267,240	387,260
Other accommodations	148,430	127,810	91,240
No answer	6,730	13,020	10,100

NA Not available.

1/ Because of multiple responses in 1989, detail may add to more than indicated total.

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, pp. 7, 19, and 20, and records.

Table 194.-- CHARACTERISTICS OF WESTBOUND VISITOR PARTY HEADS: 1987 TO 1989

[Data limited to visitors staying overnight or longer. Combined data for visitors to and from Hawaii, reported separately in previous editions]

Subject	1987	1988	1989
All party heads	2,341,690	2,355,930	2,045,790
Occupation:			
Professional and technical	852,250	898,940	849,410
Business, managerial, official	582,020	607,590	534,670
Clerical, office, sales	210,290	203,300	152,300
Military service	25,490	21,950	21,180
Other employed	145,180	148,120	127,020
Military dependent	3,860	3,560	4,180
Retired	310,810	286,900	214,840
Student	116,010	106,710	77,130
Other non-employed	57,140	54,360	49,980
Not reported	38,640	24,500	15,080
Trips to Hawaii:			
First trip	1,088,600	1,076,670	847,940
Second trip	412,770	427,340	372,810
Third trip	204,180	209,730	190,670
Fourth trip and over	452,990	496,620	423,850
Not reported	183,150	145,570	210,520
Persons in party: 1/			
1 person	882,890	841,750	399,710
2 persons	1,230,450	1,286,220	1,032,290
3 persons	100,940	103,660	150,430
4 persons	92,590	92,430	196,630
5 persons or more	34,820	31,870	110,060
Not reported	-	-	156,670
Average size	1.80	1.81	2.30

1/ Changes in distribution after 1988 reflect revised editing procedures. Nonresponse on the party size question before 1989 was apparently imputed (as 1).

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, pp. 9, 21, and 22, and records.

Table 195.-- LENGTH OF STAY OF WESTBOUND VISITORS STAYING OVERNIGHT OR LONGER: 1986 TO 1989

[Combined data for visitors destined to or beyond Hawaii, reported separately in previous editions]

Year	All visitors	1 to 6 days	7 to 12 days	13 to 30 days	31 to 365 days	Not reported	Median (days)
1986 ...	4,256,390	610,930	2,737,160	864,850	43,450	(1/)	9.8
1987 ...	4,204,010	602,900	2,711,520	846,060	43,530	(1/)	9.8
1988 ...	4,264,730	679,960	2,756,930	784,770	43,070	(1/)	9.7
1989 ...	4,705,320	768,190	2,720,430	876,740	42,030	297,930	9.7

1/ Nonresponse distributed.

Source: Hawaii Visitors Bureau, 1987 Annual Research Report, p. 14; and 1988 Westbound Visitors to Hawaii, p. 14; and records.

Table 196.-- VISITOR INDUSTRY PROJECTIONS: 1985 TO 2010

[Series M-K projections, developed by DBED]

Year	Visitor arrivals (1,000)	Average visitor census (1,000)		Hotel employment (1,000)		Visitor and crew expenditures (millions of 1982 dollars)
		State total	Oahu only	State total	Oahu only	
1985 (est.) ..	4,884	117	65	29.0	16.1	4,210
1990	6,521	152	82	34.5	17.9	6,070
1995	7,746	179	89	38.1	18.7	7,324
2000	8,979	206	97	41.3	19.0	8,556
2005	10,159	233	105	43.7	19.0	9,680
2010	11,494	264	113	46.3	19.0	10,952

Source: 1985 from Hawaii Visitors Bureau and Hawaii State Department of Labor and Industrial Relations; 1990-2010 from Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 18.

Table 197.-- FAMILY INCOME, TRIP CHARACTERISTICS, AND OPINIONS OF MAINLAND VISITORS TO HAWAII: 1985 TO 1988

Subject	1985	1986	1987	1988
Number of respondents in sample	5,318	5,030	5,185	5,004
Family income before taxes (percent) ..	100.0	100.0	100.0	100.0
Under $15,000	3.4	2.8	2.1	1.2
$15,000 to $24,999	12.5	9.8	8.2	6.4
$25,000 to $34,999	17.8	16.5	14.1	11.7
$35,000 to $49,999	26.4	25.5	25.4	22.9
$50,000 to $74,999	24.6	28.1	29.2	29.5
$75,000 and over	15.4	17.3	21.0	28.3
Median income (dollars)	44,300	47,300	50,100	56,600
Mean income (dollars)	50,000	52,800	56,000	61,400
Education: college graduates (percent)	54.9	53.9	56.4	62.7
Using travel agent (percent)	84.8	84.4	85.1	81.8
Islands visited (percent):				
Oahu	77.3	72.6	70.0	65.6
Kauai	26.4	30.0	30.4	31.3
Maui	44.1	43.3	42.1	42.6
Hawaii	27.1	28.3	28.0	25.7
Hawaii compared with other vacation areas visited (percent)	100.0	100.0	100.0	100.0
Far superior	40.4	38.9	36.0	39.6
Above average	51.9	53.4	55.4	53.2
Average	7.0	7.1	7.7	6.8
Below average	0.6	0.5	0.8	0.4
Quite inferior	(Z)	0.1	0.2	(Z)

Z Less than 0.05 percent.

Source: Hawaii Visitors Bureau, Visitor Reaction Survey, 1988 (1990), and unpublished data.

Table 198.-- CHARACTERISTICS OF JAPANESE VISITORS TO HAWAII: 1988 AND 1989

[Based on surveys of Japanese overnight and longer visitors interviewed at Honolulu International Airport while awaiting departure, during four widely spaced periods during each year]

Characteristic	1988	1989
Sample size	1,623	1,811
Average age (years)	30.6	33.5
Female (percent)	39.8	37.9
Honeymooners (percent)	50.3	31.0
Attended college (percent)	51.6	54.0
Median household income (million yen)	4.8	6.7
Average party size	2.5	2.4
Repeat visitors (percent)	22.6	32.0
Organized tour group/package (percent)	90.0	90.0
Islands visited, including day trips (percent): 1/		
Oahu	97.8	98
Molokai	0.8	1
Maui	21.7	16
Big Island	6.7	6
Kauai	11.8	6
Length of stay (days):		
Median	4.9	(NA)
Average	6.0	6.0
Expenditures, excluding transpacific fare (dollars): 2/		
Per person per day	586	589
Per party during entire trip	6,074	5,141

NA Not available.

1/ 1989 data for spring and summer months exclude Neighbor Island day trips.

2/ Because of significant differential nonresponse on the expenditure question, the two measures of expenditures (per person per day and per party per trip) are based on atypical subsamples inconsistent with overall data on party size and length of stay.

Source: Hawaii Visitors Bureau, Study of Japanese Visitors to Hawaii 1988 (April 1989), 1989 Eastbound Visitors to Hawaii (1990), and records.

Table 199.-- JAPANESE VISITOR ARRIVALS AND EXPENDITURES: 1984 TO 1989

Subject	1984	1985	1986	1987	1988	1989
Arrivals (1,000)	639	709	731	905	1,217	1,319
Average stay (days)	5	5	5	5	6	5.9
Expenditures 1/ (mil. dol.)	749	855	1,312	1,658	4,278	4,583

1/ Approximate figures based on limited information. The 1988 estimate is preliminary and subject to significant revision.

Source: Hawaii Visitors Bureau, 1989 Eastbound Visitors to Hawaii (1990), pp. 27 and 47, and unpublished 1984-1988 estimates released December 14, 1989.

Table 200.-- MEETINGS AND CONVENTIONS, BY ISLANDS: 1988 AND 1989

Island	Number of meetings held		Estimated attendance	
	1988	1989	1988	1989
State total	886	754	301,654	259,399
Hawaii:				
Hilo	22	3	2,654	837
Kona	61	130	13,847	34,851
Maui	192	160	58,256	60,111
Molokai	4	1	492	88
Oahu	507	362	197,040	137,329
Kauai	100	98	29,365	26,183

Source: Hawaii Visitors Bureau, Meetings and Conventions Department.

Table 201.-- MEETINGS AND CONVENTIONS: 1984 TO 1989

Year	No. of meetings held	Estimated attendance	Estimated guest rooms	Estimated revenue ($1,000)
1984	623	255,152	91,605	218,247
1985	740	247,166	104,354	219,882
1986	810	250,703	98,591	249,042
1987	903	317,101	126,181	300,721
1988	886	301,654	131,273	354,363
1989	754	259,399	121,533	343,965

NA Not available.

Source: Hawaii Visitors Bureau, Meetings and Conventions Department.

Table 202.-- AVERAGE EXPENDITURE PER VISITOR DAY, BY ORIGIN OF VISITORS: 1931-1932 TO 1989

[Dollars]

Year	Mainlanders	Japanese
1931-32 1/	17.50	(NA)
1951	28.00	(NA)
1960-61	32.00	(NA)
1965-66 1/	37.23	(NA)
1974	46.20	123.00
1977	54.62	146.85
1980	71.24	185.00
1983	85.88	227.32
1986	95.40	358.90
1987	102.49	366.63
1988 2/	121.44	586.00
1989	126.57	588.92

NA Not available.

1/ Oahu only.

2/ Several authorities have questioned the accuracy of the Japanese average reported here.

Source: Hawaii Visitors Bureau, 1983 Visitor Expenditure Survey (1985), p. 31; Study of Japanese Visitors to Hawaii 1987 (March 1988), p. 28; Study of Japanese Visitors to Hawaii 1988 (April 1989), p. 26; unpublished 1986 Japanese estimate; and 1989 Expenditures, Westbound Visitors to Hawaii (1990), pp. 29, 30, and 46.

Table 203.-- EXPENDITURES PER VISITOR DAY BY WESTBOUND VISITORS, BY EXPENDITURE TYPE: 1988 AND 1989

[In dollars. Excludes transpacific travel costs]

Expenditure type	1988 1/	1989		
		State-wide	On Oahu	On the Neighbor Islands
All items	121.44	126.57	122.23	145.76
Food and beverage	25.90	26.41	26.48	27.52
Restaurants	18.20	18.70	17.94	21.71
Dinner shows	2.70	2.61	3.57	0.86
Nightclubs	2.32	2.40	2.55	1.75
Groceries	2.68	2.70	2.42	3.20
Entertainment	9.06	8.41	7.71	11.19
Attractions	7.10	6.17	6.02	7.69
Other entertainment.........	1.96	2.24	1.69	3.50
Transportation	13.41	13.93	10.50	27.69
Ground transportation	1.03	1.01	1.17	0.53
U-drive cars................	4.24	5.42	4.05	9.36
Interisland travel	5.19	5.04	2.12	16.06
Sightseeing tours	2.95	2.46	3.16	1.74
Clothing	8.65	9.76	10.18	7.50
Gifts and souvenirs	10.00	10.97	11.53	8.60
Lodging	46.80	49.43	48.14	56.00
All other	5.26	5.31	5.31	4.97
Adjustment 2/	2.36	2.35	2.38	2.29

1/ Revised from Data Book 1989, table 202.
2/ Estimated amount of underreporting for listed categories.
Source: Hawaii Visitors Bureau, 1989 Expenditures, Westbound Visitors to Hawaii (1990), pp. 14-15.

Table 204.-- EXPENDITURES PER VISITOR DAY BY WESTBOUND VISITORS, BY VISITOR OR TRIP CHARACTERISTICS: 1989

Visitor or trip characteristics	Dollars	Visitor or trip characteristics	Dollars
All westbound visitors	126.57	Previous visits:	
		First trip	125.11
Group tour:		Repeat visitors	127.15
Organized tour group	126.83		
Individually arranged	126.73	Party size:	
		1 person	161.94
Accommodations:		2 persons	125.28
Hotel only	129.73	3 persons	94.40
Condo only	103.09	4 persons or more	84.32
Guests of friends and relatives	*55.71	Purpose of trip:	
Hotel/condo combination	119.03	Pleasure	124.57
		Business	150.08
Length of stay:		Other	111.94
1 to 6 days	144.68		
7 to 12 days	122.27	Time of year:	
13 to 18 days	126.72	First quarter	127.35
19 days or longer	104.93	Second quarter	127.02
		Third quarter	124.13
		Fourth quarter	128.10
Residence: 1/			
Pacific	121.54	Arrived on package tour:	
Mountain	111.69	Yes	124.38
W.N. Central	123.55	No	129.78
W.S. Central	131.63		
E.N. Central	122.01	Children in party:	
E.S. Central	116.24	Yes	87.33
New England	122.27	No	130.97
Mid Atlantic	137.00		
S. Atlantic	137.55		

* Sample under 25; subject to considerable sampling variation.

1/ Census divisions; see source, p. 40.

Source: Hawaii Visitors Bureau, _1989 Expenditures, Westbound Visitors to Hawaii_ (1990), p. 14.

Table 205.-- ESTIMATED EXPENDITURES BY VISITORS TO HAWAII, BY COUNTIES: 1970 TO 1989

[Millions of dollars. Interisland air fares have been distributed on a prorata basis. Before 1989, all expenditures by eastbound visitors were included with the City and County of Honolulu. Excludes expenditures by Hawaii residents]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
1970	595	442.0	153.0	53.4	45.1	54.5
1971	705	507.0	198.0	67.7	56.1	74.2
1972	840	609.0	231.0	77.0	61.9	92.1
1973	1,020	777.0	243.0	81.9	63.2	97.9
1974	1,225	927.5	297.5	99.3	73.9	124.3
1975	1,360	1,004.1	355.9	114.6	87.2	154.1
1976	1,640	1,212.8	427.2	126.8	101.8	198.6
1977	1,845	1,376.5	468.5	131.2	109.9	227.4
1978	2,146	1,569.0	577.0	152.9	137.9	286.9
1979	2,537	1,867.2	669.8	162.0	159.1	348.7
1980	2,875	2,097.5	777.5	187.6	189.3	400.6
1981	3,200	2,394.1	805.9	179.2	197.3	429.4
1982	3,700	2,748.2	951.8	200.9	210.6	540.3
1983	3,974	2,653.1	1,320.9	277.2	250.8	792.9
1984	4,582	2,895.4	1,686.6	248.9	359.4	1,078.3
1985	4,884	3,084.5	1,799.5	285.9	407.9	1,105.7
1986	5,500	3,443.8	2,056.2	343.8	516.9	1,195.5
1987	6,600	4,370.4	2,229.6	381.8	580.1	1,267.7
1988	9,200	6,552.7	2,647.3	464.2	712.1	1,471.0
1989 1/....	10,907	6,635.6	4,271.0	1,004.8	952.3	2,313.9

1/ Data reflect improved allocation of eastbound visitor expenditures, previously included with Oahu, and thus are not comparable to estimates for earlier years.

Source: Hawaii Visitors Bureau, "Neighbor Island Statistics," tabular releases dated May 1989 and 1990.

Table 206.-- ESTIMATED DIRECT VISITOR-RELATED EXPENDITURES: 1970 TO 1989

[In millions of dollars]

Year	Total	Visitors	Airline and ship crews	Overseas airlines 1/
1970	714.6	595	8.0	111.6
1971	835.8	705	8.0	122.8
1972	982.2	840	9.0	133.2
1973	1,181.6	1,020	8.0	153.6
1974	1,408.6	1,225	12.6	171.0
1975	1,559.4	1,360	8.4	191.0
1976	1,890.8	1,640	6.8	244.0
1977	2,093.8	1,845	7.8	241.0
1978	2,427.4	2,146	11.4	270.0
1979	2,947.7	2,537	11.6	399.1
1980	3,406.2	2,875	13.2	518.0
1981	3,775.0	3,200	15.0	560.0
1982	4,235.0	3,700	15.0	520.0
1983	4,483.0	3,974	14.0	495.0
1984	5,139.0	4,582	15.0	542.0
1985	5,458.0	4,884	16.0	542.0
1986	6,110.0	5,500	18.0	542.0
1987	7,250.0	6,600	20.0	630.0
1988	9,938.0	9,200	22.0	716.0
1989	11,750.0	10,907	24.0	819.0

1/ Includes payroll, fuel taxes, and landing fees.

Source: Hawaii State Department of Planning and Economic Development, The Economic Impact of Tourism in Hawaii: 1970 to 1980, Research Report 1983-2 (April 1983), and unpublished 1981-1989 estimates based on the DBED Input-Output Model and Hawaii Econometric Model.

Table 207.-- ECONOMIC ACTIVITY GENERATED BY VISITOR-RELATED EXPENDITURES: 1970 TO 1989

Year	Visitor-related expenditures 1/ (million dollars)	Total sales or output 2/ (million dollars)	Household income (million dollars)	State and county tax revenues (million dollars)	Jobs 2/ (1,000)
1970	714.6	1,290.8	459.7	69.7	76.6
1971	835.8	1,507.0	538.6	82.8	87.3
1972	982.2	1,766.2	633.6	96.7	96.2
1973	1,181.6	2,122.0	763.5	118.7	105.6
1974	1,408.6	2,522.3	910.7	141.0	112.8
1975	1,559.4	2,751.7	995.9	165.7	113.5
1976	1,890.8	3,263.0	1,184.0	201.4	123.1
1977	2,093.8	3,642.9	1,324.9	225.0	127.3
1978	2,427.4	4,238.7	1,544.2	262.1	132.4
1979	2,947.7	5,005.0	1,826.8	316.7	143.3
1980	3,406.2	5,719.5	2,091.0	353.0	150.0
1981	3,775.0	6,265.2	2,294.1	390.1	154.4
1982	4,235.0	7,162.3	2,627.1	436.9	165.4
1983	4,483.0	7,587.9	2,788.9	461.6	166.2
1984	5,139.0	8,655.9	3,185.6	537.0	180.7
1985	5,458.0	9,210.9	3,390.2	578.8	186.5
1986	6,110.0	10,263.7	3,782.5	657.2	196.3
1987	7,250.0	12,028.3	4,455.2	3/ 831.0	213.3
1988	9,938.0	14,437.6	5,347.6	979.9	225.4
1989	11,750.0	16,338.5	6,051.7	1,147.6	243.1

1/ Direct expenditures by visitors, airline and ship crews, and overseas airlines.

2/ Direct, indirect, and induced.

3/ Partly reflects visitor accommodations tax enacted in 1986 and effective January 1, 1987.

Source: Hawaii State Department of Planning and Economic Development, The Economic Impact of Tourism in Hawaii: 1970 to 1980, Research Report 1983-2 (April 1983), and revised 1970-1989 estimates based on the DBED Input-Output Model and Hawaii Econometric Model.

Table 208.-- ECONOMIC ACTIVITY GENERATED BY VISITOR-RELATED EXPENDITURES, BY INDUSTRY: 1988 AND 1989

Year and industry	Direct visitor-related expenditures 1/ (million dollars)	Total sales or output 2/ (million dollars)	Total household income (million dollars)	Jobs (1,000)	
				Total 3/	Direct only
1988					
All industries	9,938.0	14,437.6	5,347.6	225.4	125.5
Agriculture	47.1	104.2	46.2	0.6	0.3
Textile and apparel mfg.	80.8	143.0	49.3	3.5	2.1
Other manufacturing	239.7	469.8	124.6	6.8	2.2
Air transportation	644.9	1,135.1	367.6	15.7	7.0
Other transportation	249.6	514.1	197.2	4.2	2.1
Wholesale trade 4/	208.7	440.4	189.9	8.0	3.9
Eating and drinking places ...	1,545.1	3,013.0	911.6	52.9	30.8
Other retail trade 4/	825.4	1,774.6	825.4	42.0	27.5
Hotel services and real estate	2,506.3	5,588.9	2,130.3	63.9	33.1
Other services	609.0	1,254.5	505.4	27.7	16.5
Imports	2,981.4	-	-	-	-
1989					
All industries	11,750.0	16,338.5	6,051.7	243.1	135.4
Agriculture	53.3	117.9	52.3	0.7	0.4
Textile and apparel mfg.	91.4	161.8	55.8	3.7	2.3
Other manufacturing	271.2	531.6	141.0	7.3	2.3
Air transportation	729.8	1,284.5	416.0	16.6	7.4
Other transportation	282.4	581.8	223.1	4.6	2.3
Wholesale trade 4/	236.2	498.4	215.0	8.7	4.2
Eating and drinking places ...	1,748.6	3,409.7	1,031.6	57.3	33.3
Other retail trade 4/	934.1	2,008.2	934.1	45.5	29.7
Hotel services and real estate	2,836.2	6,324.8	2,410.8	68.5	35.5
Other services	689.1	1,419.6	572.0	30.1	17.9
Imports	3,877.5	-	-	-	-

1/ Direct expenditures by visitors, airline and ship crews, and overseas airlines.

2/ Direct, indirect, and induced sales.

3/ Direct, indirect and induced jobs.

4/ Expenditure figure refers to mark-up earned, not total sales revenue.

Source: Hawaii State Department of Business, Economic Development & Tourism, unpublished estimates based on the DBED Input-Output Model and Hawaii Econometric Model.

Table 209.-- VISITOR INDUSTRY PRICES, PRICE DEFLATOR, AND PRICE INDEXES: 1969 TO 1989

Year	Implicit price deflator 1/ (1982=100)	Average daily room rate 2/ (dollars)	1-way air fares (dollars)		Honolulu consumer price index 5/ (1982-84=100)		
			San Francisco-Honolulu 3/	Honolulu-Kahului 4/	Eating out	Apparel, upkeep	All items
1969 ..	40.7	23.98	110.03	15.75	35.6	53.4	39.4
1970 ..	45.2	25.74	97.30	19.00	38.6	56.2	41.5
1971 ..	46.1	24.28	111.35	19.00	40.4	57.4	43.2
1972 ..	47.1	21.83	111.35	19.00	41.7	58.9	44.6
1973 ..	48.9	23.64	110.63	19.64	44.3	60.6	46.6
1974 ..	53.0	26.56	126.64	20.64	49.9	65.1	51.5
1975 ..	58.3	29.75	126.64	21.38	56.9	69.0	56.3
1976 ..	62.5	29.54	126.64	23.00	61.5	71.6	59.1
1977 ..	67.5	34.28	132.05	25.00	65.1	74.3	62.1
1978 ..	73.6	38.49	129.05	27.00	69.7	78.8	66.9
1979 ..	81.0	44.41	141.05	29.00	75.2	83.9	74.3
1980 ..	88.9	47.28	211.08	41.00	81.0	89.8	83.0
1981 ..	95.8	49.73	296.09	51.00	88.5	94.5	91.7
1982 ..	100.0	51.78	328.10	48.00	95.5	98.4	97.2
1983 ..	104.4	54.78	353.14	49.95	100.1	101.4	99.3
1984 ..	108.9	59.25	353.14	49.95	104.5	100.2	103.5
1985 ..	116.5	68.84	364.00	44.95	108.6	99.6	106.8
1986 ..	119.5	73.20	364.00	46.95	111.4	99.8	109.4
1987 ..	125.0	80.09	486.00	48.95	115.6	102.5	114.9
1988 ..	132.0	87.94	494.00	48.95	121.0	106.8	121.7
1989 ..	140.0	95.83	524.00	44.95	122.2	104.3	128.7

1/ For visitor and crew expenditures. From DBED, Hawaii Gross State Product Accounts: 1958-1988 (June 1989), table 1-5 and underlying data. Indexes for 1986-1989 are preliminary.

2/ From Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (monthly).

3/ Coach or Economy weekday fare, including taxes, as of July 1, by Pan American World Airways through 1979 and United Airlines thereafter. From chronology in DPED, Statistical Report 103, and Data Book, 1979-1989.

4/ Kamaaina fare, including taxes, as of July 1, by Hawaiian Airlines. From chronology in DPED, Statistical Report 103, and Data Book, 1979-1989.

5/ Honolulu CPI for all urban consumers, from U.S. Bureau of Labor Statistics computer tape tabulated by Hawaii State Data Center.

Source: See above footnotes.

Table 210.-- PER DIEM COST OF BUSINESS TRAVEL TO HONOLULU: 1988

[Average daily expenditure of a business traveler for lodging, food, and car rental in the Honolulu Metropolitan Statistical Area]

Item	Amount (dollars)	Percent of U.S. average 1/	Rank 1/
Total per diem cost	158.65	96.8	37
Food	2/ 52.55	95.3	40
Lodging	68.37	105.7	32
Car rental	37.73	85.6	94

NA Not available.

1/ Based on the 100 leading business travel MSAs in the U.S.

2/ Breakfast, $7.51; lunch, $9.81; dinner, $26.75; tax and 15 percent tip, $8.48.

Source: "1989 Corporate Travel Index," Corporate Travel (offprint, 1989); Honolulu Star-Bulletin, May 18, 1989, pp. C-1 and C-4.

Table 211.-- HAWAII VISITORS BUREAU INCOME AND EXPENDITURES: 1984 TO 1989

[In dollars. Years ended June 30]

Year	Income				Expenditures
	Total	State appropriations 1/	Private subscriptions	Other 2/	
1984	4,384,978	2,706,732	1,108,374	569,872	4,384,264
1985	5,345,724	4,009,391	1,125,914	210,419	5,347,648
1986	6,657,841	5,169,391	1,200,112	288,338	6,657,704
1987	8,652,826	7,069,391	1,242,111	341,324	8,652,487
1988	13,926,560	12,230,000	1,353,259	343,301	13,720,078
1989	14,898,387	13,042,708	1,475,965	379,714	14,103,399

1/ Net after refunds (if any) to the State.

2/ May include income from Federal grants, mainland promotional programs, literature sales, convention servicing, and interest.

Source: Peat, Marwick, Mitchell & Co., Hawaii Visitors Bureau, Financial Statements and Schedules (annual).

Table 212.-- MEDIA ADVERTISING EXPENDITURES FOR HAWAII TOURISM: 1985 AND 1986

[$1,000]

Year	All media	Newspaper	Magazine	Television	Radio	Outdoor
1985	2,187	203	1,846	85	53	-
1986	1,641	10	924	872	48	1

Source: Trends in Travel and Tourism Advertising Expenditures in United States Measured Media 1982-1986, A Special Report for Ogilvy & Mather, July 1987, as cited in Hawaii State Department of Business and Economic Development, Tourism Branch, A Report on Tourism Destinations Competing with Hawaii, by Arthur Young, January 1989, Appendix.

Table 213.-- STATE TOURISM OFFICE BUDGET AND RANK: 1988-89 ACTUAL AND 1989-90 PROJECTED

[Includes Hawaii Visitors Bureau and DBED Tourism Branch]

Category	Amount ($1,000)		Rank (50 states)	
	1988-89	1989-90	1988-89	1989-90
Total budget	17,340	22,519	4	1
Advertising budget ..	4,000	4,828	9	5

Source: U.S. Travel Data Center, Survey of State Travel Offices 1989-1990 (March 1990).

Table 214.-- CHARACTERISTICS OF RESIDENTS RETURNING FROM OUT-OF-STATE TRIPS, BY DIRECTION OF TRAVEL: 1989

Subject	Total	Westbound	Eastbound
All groups	478,560	394,080	84,480
Occupation: 1/			
Professional, technical	(NA)	131,430	(NA)
Business, managerial, official	(NA)	68,820	(NA)
Clerical, office, sales	(NA)	34,460	(NA)
Military service	46,770	41,950	4,820
Military dependent	(NA)	5,850	(NA)
Other employed	(NA)	27,570	(NA)
Retired	65,830	47,060	18,770
Student	21,400	19,290	2,110
Other non-employed	(NA)	11,140	(NA)
Unclassified	58,780	-	58,780
Not reported	6,510	6,510	-
Purpose of trip: 2/			
Pleasure	251,910	173,170	78,740
Business	79,680	76,970	2,710
Visit friends or relatives	106,840	105,400	1,440
Other purposes	49,410	46,880	2,530
Not reported	18,060	18,060	-
Persons per party	2.1	2.2	1.9
Days absent:			
Median 3/	9.8	9.1	15.0
Mean	14.3	12.7	21.7
Average number absent	18,735	13,712	5,023

NA Not available.

1/ Total persons, by occupation of party head.

2/ Because of multiple responses, detail adds to more than indicated total.

3/ Recalculated from published figures.

Source: Hawaii Visitors Bureau, 1989 Westbound Visitors to Hawaii (1990), pp. 30-33.

Table 215.-- CHARACTERISTICS OF RESIDENTS RETURNING FROM THE MAINLAND: 1984 TO 1989

Year	Number returning	Median age (years)	Males per 100 females	Persons per party 1/	Days absent		Average number absent
					Median	Mean	
1984	333,640	38.2	100.4	1.43	12.5	16.1	14,700
1985	403,450	39.2	100.5	1.43	12.2	15.3	16,900
1986	411,440	39.7	98.8	1.45	11.0	14.0	15,735
1987	398,580	41.7	96.4	1.45	10.7	13.1	14,036
1988	521,000	40.0	96.5	1.46	10.8	13.2	18,886
1989	394,080	(NA)	(NA)	2.2	9.1	12.7	13,712

NA Not available.

1/ Increase after 1988 reflects revised editing procedures, in which nonresponse, previously imputed as 1, was distributed.

Source: Hawaii State Department of Business and Economic Development, Out-of-State Travel by Hawaii Residents During 1986 (Statistical Report 202, September 22, 1987), table 2; Hawaii Visitors Bureau, 1989 Westbound Visitors to Hawaii (1990), pp. 30-33, and records.

Table 216.-- DEPARTURE POINT FOR WESTBOUND RETURNING RESIDENTS: 1988

Departure point	Number	Departure point	Number
Total	521,000	Las Vegas	33,894
Los Angeles	131,497	Chicago	27,910
San Francisco	120,773	Seattle	23,176
Other/Los Angeles 1/	61,284	Dallas	12,638
New York/Los Angeles	42,956	Other	66,872

1/ Includes other connecting flights through Los Angeles to Hawaii.

Source: Hawaii Visitors Bureau, special tabulation.

Table 217.-- INTERISLAND, MAINLAND, AND FOREIGN ROUND TRIPS BY ADULT OAHU RESIDENTS DURING THE PAST 12 MONTHS: 1988 AND 1989

[Percent distributions]

Number of trips	1988 1/	1989 2/
INTERISLAND TRIPS		
All adult residents	100	100
None	48	43
1 or 2	31	30
3 to 5	12	18
6 to 10	6	5
11 or more	3	4
Average number of trips	2.5	2.2
MAINLAND ROUND TRIPS		
All adult residents	100	100
None	46	49
1	29	27
2 to 5	21	20
6 or more	4	4
Average number of trips	1.2	1.2
FOREIGN ROUND TRIPS		
All adult residents	100	100
None	82	82
1	12	13
2 or more	6	5
Average number of trips	0.3	0.3

1/ Based on a telephone survey of 400 adult residents of Oahu, May 12-19, 1988.

2/ Based on a telephone survey of 401 adult residents of Oahu, July 22-29, 1989.

Source: Omnitrak Research and Marketing Group, Inc., survey cited in Honolulu Star-Bulletin, September 5, 1989 (p. C-1), September 12, 1989 (p. C-1), and September 19, 1989 (p. C-1).

Table 218.-- PASSPORTS ISSUED BY HONOLULU OFFICE: 1979 TO 1989

[Calendar year data. The area served by the Honolulu Passport Office includes Hawaii and American Samoa for all years and Guam and the Northern Mariana Islands beginning November 1988]

Year	Number	Year	Number	Year	Number
1979	28,974	1983	41,446	1987	47,979
1980	31,928	1984	52,250	1988 1/ ...	43,875
1981	34,191	1985	56,140	1989 2/ ...	47,401
1982	41,906	1986	43,731		

1/ Includes some passports issued in California.

2/ Includes 36,034 mailed to Hawaii addresses and 11,367 mailed outside the State.

Source: U.S. Department of State, Passport Services, Honolulu Region, records.

Table 219.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS, BY ISLANDS: 1987 TO 1989

Island	Number of attractions reported			Attendance		
	1987	1988	1989	1987	1988	1989
State total ..	71	76	73	19,241,937	20,663,475	19,436,267
Hawaii	13	13	13	4,315,964	5,489,823	4,224,928
Maui 1/	13	14	14	928,461	988,207	927,470
Lanai	-	-	-	-	-	-
Molokai	2	3	3	13,207	18,709	18,285
Oahu	34	36	35	13,078,879	13,431,445	13,599,829
Kauai	9	10	8	905,426	735,291	665,755
Niihau	-	-	-	-	-	-

1/ Lahaina Restoration Foundation attractions counted separately.

Source: Table 220.

Table 220.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1987 TO 1989

[Calendar year data unless otherwise specified. Some 1987 and 1988 data have been revised]

Island and cultural attraction	1987	1988	1989
Oahu:			
Bernice P. Bishop Museum 1/	246,113	362,906	302,127
Contemporary Arts Center 2/	-	5,000	26,048
Damien Museum and Archives	8,814	11,026	11,598
Dole Cannery Square	160,000	350,000	363,008
Foster Botanic Garden	59,352	57,532	54,865
Fred Ohrt Museum	5,221	3,334	4,510
Halawa Xeriscape Garden 3/	-	-	4,284
Harold L. Lyon Arboretum 1/	(NA)	11,795	15,371
Hawaii Maritime Center 4/	100,000	1,952	66,500
Hawaii Nature Center	14,681	23,142	32,466
Honolulu Academy of Arts 5/	258,789	230,736	299,219
Honolulu Advertiser Gallery	26,700	27,100	(NA)
Honolulu Zoo	758,485	875,825	752,207
Hoomaluhia Park	55,265	59,323	59,774
Iolani Palace State Monument 1/	76,000	72,000	74,000
Mission Houses Museum	27,035	26,746	29,788
Moanalua Gardens	11,116	10,318	(NA)
Mormon Temple Grounds (Church of Jesus Christ of Latter-Day Saints, Hawaii Temple Visitor's Center)	239,698	232,767	219,818
National Memorial Cemetery of the Pacific	5,343,973	5,623,916	6,049,931
Pacific Submarine Museum 6/	20,000	-	-
Paradise Cove Luau Park	307,603	298,198	264,743
Paradise Park	258,208	215,677	185,457
Polynesian Cultural Center	1,001,708	881,500	850,185
Puu o Mahuka Heiau State Monument 1/	9,000	7,000	9,000
Queen Emma Summer Palace	18,209	23,793	20,766
Royal Mausoleum State Monument 1/	77,000	74,000	77,000
Sea Life Park	758,978	739,041	740,170
Senator Fong's Plantation and Gardens 7/	-	32,578	55,690
Tropic Lightning Museum	7,000	4,500	5,350
Ulu Po Heiau State Monument 1/	4,000	2,000	2,000
U.S. Army Museum, Ft. DeRussy	91,341	108,123	125,680
U.S.S. Arizona Memorial	1,845,557	1,778,347	1,768,587
Visiting either Memorial or Visitor Center	1,522,635	1,462,395	1,444,639
Aboard non-landing tour boats	322,922	315,952	323,948
U.S.S. Bowfin WWII Submarine Exhibit 8/ .	206,610	245,742	202,571
University of Hawaii Art Gallery	50,000	50,000	50,000
Wahiawa Botanic Garden	17,369	17,400	13,248
Waikiki Aquarium 9/	332,219	301,232	269,590

Continued on next page.

Table 220.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS:
1987 TO 1989 -- Con.

Island and cultural attraction	1987	1988	1989
Oahu - con.:			
Waimea Falls Park	672,835	654,896	580,020
Waipahu Cultural Garden Park	10,000	12,000	14,258
Hawaii:			
Hawaii Tropical Botanical Garden	34,000	33,051	35,466
Greenwell Store Museum	5,100	5,000	5,000
Hulihee Palace	24,635	25,470	27,716
Jagger Museum 10/	1,373,000	1,900,000	2,000,000
Kealakekua Bay State Historical Park 1/	57,000	62,000	47,000
Kilauea Visitor Center	1,310,000	1,800,000	1,800,000
Lapakahi State Historical Park 1/	65,000	69,000	77,000
Lyman House Memorial Museum	15,252	16,414	16,847
Panaewa Rainforest Zoo	67,170	69,814	77,133
Parker Ranch Historic Homes 11/	-	(NA)	28,710
Parker Ranch Visitor Center	23,000	28,000	31,000
Volcano Art Center 12/	55,450	52,470	50,750
Wahaula Visitor Center 13/	562,000	1,400,000	(NA)
Wailoa Center	29,807	28,604	28,306
Maui:			
Alexander & Baldwin Sugar Museum 14/	5,406	24,517	28,629
Halekii-Pihana Heiaus State Monument 1/	22,000	38,000	35,000
Hale Waia Wai O Hana	9,938	8,266	8,035
Kula Gardens	18,150	19,750	20,021
Lahaina Restoration Foundation	179,878	174,827	159,320
Baldwin Missionary Home Museum	47,400	46,302	50,969
Brig Carthaginian 15/	78,278	52,185	21,139
Hale Pa'ahao (Old Lahaina Prison) 16/	-	17,650	25,340
Hale Pa'i Printing House	6,500	6,200	5,400
Kalaupapa Lighthouse Lens Exhibit 17/	11,500	19,910	22,082
Wo Hing Temple Museum	36,200	32,580	34,390
Maui Historical Society Museum	18,306	17,682	18,495
Maui Tropical Plantation	451,000	455,000	397,458
Maui Zoological & Botanical Gardens	80,000	67,000	70,200
Whalers Village Museum	143,783	183,165	190,312
Kauai:			
Coco Palms Zoo 18/	6,142	6,142	(NA)
Grove Farm Homestead 19/	4,379	4,408	3,627
Hanalei Museum 20/	6,500	6,500	(NA)
Ho'opulapula Haraguchi Rice Mill	-	350	625
Kauai Museum 21/	28,748	29,268	29,756
Kilauea National Wildlife Refuge	418,898	247,698	204,731
Kokee Natural History Museum	83,979	95,213	101,060

Continued on next page.

Table 220.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1987 TO 1989 -- Con.

Island and cultural attraction	1987	1988	1989
Kauai - con.:			
Pacific Tropical Botanical Garden	10,500	12,000	16,000
Russian Fort Elizabeth State Historical Park 22/	343,000	331,000	308,000
Waioli Mission House 19/	3,280	2,712	1,956
Molokai:			
Kalaupapa Settlement	8,395	7,900	8,439
Molokai Ranch Wildlife Park 23/	4,812	5,919	5,920
R. W. Meyer Sugar Mill 24/	-	4,890	3,926

NA Not available.

1/ Years ended June 30.

2/ Opened October 1988.

3/ Opened September 30, 1989.

4/ Closed for renovation during first 11 months of 1988.

5/ Includes Academy Theatre (82,135 in 1987, 56,151 in 1988, and 109,119 in 1989).

6/ Closed at end of May 1987. Included with U.S.S. Bowfin beginning July 2, 1988.

7/ Opened April 11, 1988.

8/ Closed March 2-April 6, 1987 and April 23-June 19, 1987.

9/ Includes both adult and child attendance. Closed several months during 1988 for renovation.

10/ Opened January 13, 1987.

11/ Opened December 1, 1988.

12/ Revised data for 1987 and 1988.

13/ Destroyed July 1989.

14/ Opened July 15, 1987.

15/ Closed September 1, 1988 to June 30, 1989 for repairs.

16/ Opened in April 1988.

17/ Opened April 1987.

18/ Closed February 8, 1990

19/ Closed 2 months in 1989 for repairs.

20/ Closed July 1989.

21/ Years ended September 30, 1987 and December 31, 1988 and 1989.

22/ Years ended June 30. Attendance estimates reflect heavy use of restrooms by tour bus passengers.

23/ Closed part of 1987 for maintenance.

24/ Opened to general public December 5, 1988.

Source: Hawaii State Department of Business, Economic Development, and Tourism, Attendance at Cultural Attractions During 1989 (Statistical Report 216, July 1990), table 2, as revised.

Table 221.-- HONOLULU SYMPHONY ORCHESTRA: 1979-1980 TO 1989-1990

Season	Average number of orchestra personnel	Number of performances	Total attendance	Operating expenses (dollars)
1979-1980	75	122	186,135	2,189,172
1980-1981	80	107	155,622	2,211,082
1981-1982	80	109	168,900	2,627,293
1982-1983	80	142	204,193	2,817,196
1983-1984	80	135	194,600	2,562,500
1984-1985	80	120	167,500	2,966,700
1985-1986	80	137	208,370	3,053,257
1986-1987 1/ ..	80	85	139,703	2,394,804
1987-1988	79	127	184,897	4,143,347
1988-1989	80	134	215,808	4,234,275
1989-1990	80	141	183,434	4,978,813

1/ Season shortened by musicians' strike, Aug. 8-Nov. 26, 1986.
Source: Honolulu Symphony Society, records.

Table 222.-- PERFORMING ARTS STATISTICAL SUMMARY, FOR OAHU: 1978-1979 TO 1988-1989 SEASONS

Season	Number of groups reporting	Productions	Performances	Attendance
1978-1979	12	219	1,024	766,018
1979-1980	12	183	1,178	723,581
1980-1981	13	254	1,128	830,585
1981-1982	12	500	1,300	804,647
1982-1983	13	502	1,376	936,821
1983-1984	13	695	1,734	1,060,367
1984-1985	12	773	1,809	1,086,930
1985-1986	12	353	1,245	845,328
1986-1987	12	439	1,354	875,063
1987-1988	12	385	1,610	1,248,828
1988-1989	12	382	1,545	1,154,107

Source: DBED mail and telephone surveys.

Table 223.-- PERFORMING ARTS, FOR OAHU: 1988-1989 SEASON

Name of organization and type of performance	Productions	Performances	Attendance
All reporting groups	382	1,545	1,154,107
Brigham Young University - Hawaii Campus	6	17	5,000
Chaminade University of Honolulu	1	4	260
Hawaii Loa College 1/	1	4	280
Honolulu Community Theatre	8	120	39,645
Honolulu Department of Auditoriums, total	136	268	659,070
Ballets	1	6	12,000
Concerts	79	124	230,718
Operas	3	9	19,181
Rock shows	14	19	122,145
Other dramatic and musical productions	39	110	275,026
Honolulu Theatre for Youth	9	336	151,546
Leeward Community College	45	188	81,255
Manoa Valley Theatre (formerly HPAC)	6	107	15,285
The Starving Artists' Theatre Company	11	197	35,200
Adults	5	72	5,200
Children	6	125	30,000
U.S. Army Support Command, total	140	164	123,971
Army Community Theatre	4	28	12,348
Soldier bands and jam sessions	54	54	24,040
DOD/USO touring shows, showmobile activities, and special events	82	82	87,583
University of Hawaii at Manoa	16	116	40,795
Kennedy Theater	12	72	21,140
Other locations	4	44	19,655
Windward Theater Guild	3	24	1,800

1/ Excludes two motion picture productions, one shown 5 times on Channel 20 and the other shown 4 times on Channel 20.

Source: DBED mail and telephone survey.

Table 224.-- RECREATIONAL FACILITIES AND RESOURCES, BY COUNTIES: 1985

Recreation area/facility	State total	Kauai	Honolulu	Maui	Hawaii
Recreation area:					
Total acreage	1,572,891	137,192	59,400	249,656	1,126,643
Unimproved acreage	1,563,753	136,274	53,527	248,898	1,125,055
Improved acreage	9,138	918	5,873	758	1,588
Passive	3,334	275	2,057	254	747
Active	5,033	611	3,259	437	726
Service	772	32	558	67	115
Aquatic:					
Boat launch lanes	79	10	37	10	22
Boat moorages	2,750	95	2,053	254	348
Swimming pools	77	6	58	6	7
Beach acreage	490	101	306	49	34
Beach length (miles)	56	11	34	6	5
Wild shoreline (miles) ..	39	1	1	2	35
Nonstructured/land based:					
Camping sites	2,065	339	499	403	824
Public hunting (acres) ..	1,282,458	102,517	26,032	192,804	961,105
Court, courses fields, and playgrounds:					
Golf courses (holes)	1,038	144	441	219	234
Tennis courts	638	100	360	75	103
Sport fields	453	51	324	46	32
Sport courts	683	38	551	43	51
Trails:					
Hiking/equestrian (miles)	1,112	206	78	167	661
Bikeways (miles)	66	1	38	27	0

Source: Hawaii State Department of Land and Natural Resources, State Recreation Functional Plan Technical Reference Document and State Comprehensive Outdoor Recreation Plan (SCORP) (December 1985), p. 27.

Table 225.-- NATIONAL PARKS: 1979 TO 1989

Year and area	Acreage, Dec. 31 1/ Total	Federal	Non-federal	Visits 2/
1979	236,574	235,208	1,366	3,384,343
1980	247,488	235,243	12,245	3,479,797
1981	247,488	235,243	12,245	4,225,217
1982	247,488	235,243	12,245	4,950,621
1983	247,349	235,243	12,106	5,252,385
1984	247,349	235,243	12,106	5,429,289
1985	247,349	235,243	12,106	4,029,929
1986	247,349	235,565	11,784	4,736,281
1987	247,349	235,565	11,784	5,225,641
1988	247,349	235,624	11,725	5,198,428
1989	247,349	235,624	11,725	5,558,227
AREAS: 1989				
Hawaii Volcanoes National Park	207,643	207,643	-	2,225,579
Haleakala National Park	27,350	27,350	-	1,396,521
Puuhonua o Honaunau National Historical Park	181	181	-	414,380
Kaloko-Honokohau National Historical Park	1,161	381	780	17,354
Puukohola Heiau National Historic Site	100	34	66	59,754
U.S.S. Arizona Memorial 4/	12	12	-	1,444,639
Kalaupapa National Historical Park	10,902	23	10,879	(NA)

NA Not available.

1/ Data exclude the Olaa Forest Tract. This 9,654-acre tract is entirely in Federal ownership, is managed by the National Park Service, and has been designated as part of the wilderness system by the Congress, but it is not within the legally authorized boundary of Hawaii Volcanoes National Park.

2/ Decline in 1985 reflects use of new benchmark data for Hawaii Volcanoes National Park estimates, rather than an actual drop in visits.

3/ Not yet open to the public.

4/ The U.S.S. Arizona Memorial is wholly within the Pearl Harbor Naval Base. The acreage figure is the approximate extent of the total area over which the National Park Service has been granted use rights by the U.S. Navy.

Source: U.S. Department of the Interior, National Park Service, Pacific Area Office, records.

Table 226.-- STATE PARKS AND HISTORIC SITES: 1980 TO 1990

Year and island	Number of areas, June 30	Acreage, June 30		Recreation visits, year ended June 30 (1,000)
		Total	Developed	
1980	66	20,637	916.7	17,169
1981	71	20,836	937.8	15,611
1982	72	20,885	937.8	18,111
1983	74	20,564	980.1	17,246
1984	74	24,751	979.1	19,406
1985	74	24,799	882.1	19,908
1986	74	24,865	882.1	19,680
1987	76	24,909	883.6	20,068
1988	76	24,853	884.9	18,488
1989	77	24,877	887.6	17,270
1990	77	24,857	887.3	19,727
ISLANDS: 1989				
Hawaii	20	1,382.5	281.6	4,134
Maui	12	341.4	56.0	2,489
Molokai	1	233.7	10.0	43
Oahu	33	9,131.0	397.0	3,404
Kauai	11	13,788.0	143.0	7,200
ISLANDS: 1990				
Hawaii	20	1,361.4	281.6	4,307
Maui	12	343.1	56.0	3,611
Molokai	1	233.7	10.0	81
Oahu	33	9,130.6	396.7	2,984
Kauai	11	13,788.0	143.0	8,744

Source: Hawaii State Department of Land and Natural Resources, Division of State Parks, records.

Table 227.-- MAJOR STATE PARKS: 1989 AND 1990

[Parks having at least 700,000 recreation visits or 1,000 acres]

Park	Acreage, June 30		Recreation visits, year ended June 30 (1,000)
	Total	Developed	
1989			
Wailua River State Park 1/	1,125.9	50.4	3,248
Waimea Canyon State Park	1,866.4	10.0	1,257
Hapuna Beach State Recreation Area ...	68.8	20.7	1,032
Haena State Park	65.7	2.0	937
Kokee State Park	4,345.0	55.0	916
Wailuku River State Park	16.3	3.5	721
Na Pali Coast State Park	6,175.0	4.0	92
Kahana Valley State Park	5,220.3	20.0	28
Sacred Falls State Park	1,374.2	10.0	15
1990			
Wailua River State Park 1/	1,125.9	50.4	3,880
Haena State Park	65.7	2.0	1,974
Hapuna Beach State Recreation Area ...	61.8	20.7	1,135
Waimea Canyon State Park	1,866.4	10.0	930
Waianapanapa State Park	122.1	18.0	879
Kokee State Park	4,345.0	55.0	867
Old Kona Airport State Rec. Area	103.7	20.4	796
Na Pali Coast State Park	6,175.0	4.0	91
Kahana Valley State Park	5,220.3	20.0	49
Sacred Falls State Park	1,374.2	10.0	44

1/ Seven separate areas in both 1989 and 1990.

Source: Hawaii State Department of Land and Natural Resources, Division of State Parks, records.

Table 228.-- NATIONAL AND STATE HISTORIC SITES, BY ISLANDS: 1985

Island	Total sites 1/	Listed Hawaii Register only	Listed and recommended for National Register 2/	Listed National Register only	Listed both Hawaii and National Register	Eligible for Nat'l Register 3/
State total	376	90	40	92	119	37
Hawaii	87	36	2	18	23	9
Maui	34	19	1	5	8	1
Kahoolawe .	1	-	-	1	-	-
Lanai	1	-	-	1	-	-
Molokai ...	55	14	14	2	24	2
Oahu	153	9	19	60	45	20
Kauai	45	12	4	5	19	5

1/ Total sites listed in the source, as adjusted for appearance of some sites on more than one list.

2/ Sites placed on the Hawaii Register of Historic Places by the Historic Places Review Board but not yet approved by either the State Historical Preservation Officer or the National Historical Places Review Board.

3/ Sites declared eligible for National Register listing by the National Board.

Source: Hawaii State Department of Land and Natural Resources, State Parks, Outdoor Recreation, and Historic Sites Division, Hawaii Historic Places Review Board, Hawai'i/National Registers of Historic Places (February 1985).

Table 229.-- COUNTY PARKS, BY ISLANDS: 1984 TO 1989

[As of December 31]

Subject	1984	1985	1986	1987	1988	1989
Number, total	551	551	560	561	569	575
Hawaii	135	134	141	141	142	142
Maui	80	80	82	83	85	86
Lanai	3	3	3	3	4	4
Molokai	11	11	11	12	13	13
Oahu	266	266	266	265	266	271
Kauai	56	57	57	57	59	59
Acreage, total	8,248	8,222	8,227	8,324	8,336	8,506
Hawaii	1,463	1,434	1,424	1,428	1,430	1,430
Maui	899	899	905	917	926	928
Lanai	7	7	7	7	15	15
Molokai	54	54	54	58	73	73
Oahu	5,242	5,242	5,251	5,328	5,356	5,524
Kauai	583	586	586	586	536	536

Source: Compiled by the Hawaii State Department of Business and Economic Development from data provided by County parks and recreation departments.

Table 230.-- AQUATIC COLLECTIONS: DECEMBER 31, 1989

[For annual attendance, 1987-1989, see table 217]

Phylum or class	Sea Life Park		Waikiki Aquarium	
	Species	Individuals	Species	Individuals
Total	256	16,098	267	1,175
Fishes	137	4,000	163	545
Reptiles	3	36	2	3
Mammals	1/ 6	62	1	2
Invertebrates	110	12,000	101	625

1/ Plus 1 hybrid.
Source: Sea Life Park, records; Waikiki Aquarium, records.

Table 231.-- ZOOS: 1987 TO 1989

Subject and zoo	1987	1988	1989
Species: 1/			
Coco Palms 2/ (Kauai)	16	16	1
Honolulu Zoo	223	222	197
Maui Zoological & Botanical Gardens .	56	33	35
Molokai Ranch Wildlife Park	8	10	10
Panaewa Rainforest Zoo (Hilo)	54	53	57
Individuals: 1/			
Coco Palms 2/ (Kauai)	57	55	3
Honolulu Zoo	852	877	711
Maui Zoological & Botanical Gardens .	163	157	153
Molokai Ranch Wildlife Park	933	806	1,019
Panaewa Rainforest Zoo (Hilo)	171	175	195
Attendance:			
Coco Palms 2/ (Kauai)	6,142	6,142	(NA)
Honolulu Zoo	758,485	875,825	752,207
Maui Zoological & Botanical Gardens .	80,000	67,000	70,200
Molokai Ranch Wildlife Park 2/	4,812	5,919	5,920
Panaewa Rainforest Zoo (Hilo)	67,170	69,814	77,133

NA Not available.

1/ Animal and bird inventory, December 31.

2/ Closed February 8, 1990.

Source: Data obtained by Hawaii State Department of Business and Economic Development from Coco Palms Resort Hotel, Molokai Ranch Wildlife Park, and the parks and recreation departments of the City and County of Honolulu and Counties of Hawaii and Maui.

Table 232.-- ATTENDANCE AND WATER SAFETY AT GUARDED BEACH PARKS, FOR THE CITY AND COUNTY OF HONOLULU: 1990

[Year ended June 30]

Beach park	Attendance 1/	Activity (percent)			Rescues	Drownings	Surfing accidents
		Sun	Swim	Surf			
All parks	19,441,514	78	17	6	672	9	304
Ala Moana	1,495,693	66	27	7	28	2	12
Waikiki	11,173,540	94	10	5	81	2	86
Hanauma	2,815,288	74	26	0	185	3	10
Sandy	525,333	63	22	15	92	0	88
Makapuu	224,786	52	29	19	83	0	17
Bellows	133,978	61	24	15	7	0	0
Kailua	397,493	74	19	7	2	0	0
Kualoa	71,406	80	20	0	3	0	0
Sunset	344,692	73	14	13	15	0	1
Ehukai	207,125	67	11	30	24	1	25
Ke waena	203,405	70	11	20	12	0	9
Waimea	421,251	79	19	2	45	1	22
Alii	264,632	66	22	12	35	0	12
Nanakuli	264,746	59	39	3	17	0	6
Maili	170,508	60	28	13	16	0	3
Pokai Bay	380,805	57	42	1	9	0	0
Makaha	346,833	55	24	20	18	0	13

1/ Based on headcounts taken at approximately two-hour intervals by Water Safety Officers over an 8-hour work day.

Source: City and County of Honolulu, Department of Parks and Recreation, Water Safety Division, records.

Table 233.-- GOLF COURSES, BY NUMBER OF HOLES, OWNERSHIP, AND ISLANDS: JANUARY 1990

Status, island, and ownership	Number of golf courses				Number of holes
	Total	9-hole	18-hole	27-hole	
State total ...	61	11	48	2	1,017
Hawaii	12	2	9	1	207
Municipal	1	-	1	-	18
Private	11	2	8	1	189
Maui	10	1	9	-	171
Municipal	1	-	1	-	18
Private	9	1	8	-	153
Lanai	1	1	-	-	9
Private	1	1	-	-	9
Molokai	2	1	1	-	27
Private	2	1	1	-	27
Oahu	29	5	24	-	477
Military	9	3	6	-	135
Municipal	4	1	3	-	63
Private	16	1	15	-	279
Kauai	7	1	5	1	126
Municipal	1	-	1	-	18
Private	6	1	4	1	108

Source: Compiled by Hawaii State Department of Business and Economic Development from county departments of parks and recreation.

Table 234.-- COUNTY GOLF COURSES AND CAMPING PERMITS, FOR OAHU: 1984 TO 1989

Calendar year	Public golf courses			Camping permits issued 1/
	Courses	Holes	Rounds played	
1984	4	63	484,691	8,062
1985	4	63	484,594	6,937
1986	4	63	536,204	8,049
1987	4	63	548,668	8,352
1988	4	63	545,547	8,261
1989 2/	5	81	555,671	7,773

1/ By the City and County of Honolulu.

2/ Includes one 18-hole course not yet in operation.

Source: City and County of Honolulu, Department of Parks and Recreation, records.

Table 235.-- HAWAIIAN OPEN SCORES AND PURSES: 1985 TO 1990

[The Hawaiian Open is held at the Waialae Country Club golf course. Distance is 6,975 yards; par is 72. For annual data back to 1965, see Data Book 1986, table 247]

Year	Holes	Winning score		Purse (dollars)	
		Total	Below par	Total	Winner
1985	72	267	21	500,000	90,000
1986	72	272	16	500,000	90,000
1987	72	*270	18	600,000	108,000
1988	72	271	17	600,000	108,000
1989 1/	54	197	19	750,000	135,000
1990	72	279	9	1,000,000	180,000

* Sudden-death playoff.

1/ Reduced to 54 holes because of rain delays.

Source: Sunday Star-Bulletin and Advertiser, February 1, 1987, p. D-13; Honolulu Advertiser, February 9, 1987, p. F-1, February 15, 1988, p. C-1, and February 13, 1989, pp. C-1 and C-4, and February 12, 1990, p. C-4.

Table 236.-- PUBLIC HUNTING AREAS AND WILDLIFE SANCTUARIES AND REFUGES, BY ISLANDS: FEBRUARY 1990

Island	Public hunting areas		National Wildlife Refuges 1/		Other wildlife sanctuaries and refuges	
	Number	1,000 acres	Number	1,000 acres	Number	1,0 acres
State total	59	1,024.2	7	271.0	11	80.6
Hawaii	26	727.9	1	15.0	4	79.5
Maui	7	102.5	-	-	2	0.1
Lanai	1	35.6	-	-	-	-
Molokai	3	27.5	1	0.0	-	-
Oahu	11	24.0	2	0.2	5	0.7
Kauai	11	106.7	3	1.2	-	-
Other islands	-	-	1	254.6	(2/)	0.3

1/ U.S. Fish and Wildlife Service.

2/ The Hawaii State Seabird Sanctuary is comprised of 36 islets offshore all major islands, including Kure Atoll in the Northwestern Hawaiian Islands. This sanctuary is administered out of the Oahu District office.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 237.-- FISHING AND HUNTING LICENSES ISSUED: 1985 TO 1990

[Years ended June 30]

Type of license	1985	1986	1987	1988	1989	1990
Freshwater game fishing ..	7,131	8,200	8,669	10,512	9,565	10,010
Hunting	12,599	12,776	12,748	13,469	12,714	13,805

Source: Hawaii State Department of Land and Natural Resources, Division of Conservation and Resources Enforcement, records.

Table 238.-- SPORTS FISHING AND HUNTING BY PERSONS 16 YEARS AND OVER, BY RESIDENCE STATUS: 1985

Activity and characteristic	In Hawaii		Hawaii residents, outside Hawaii
	Hawaii residents	Nonres-idents	
Fishing:			
Persons fishing (1,000)	140	55	14
Days of fishing (1,000)	3,197	291	116
Per person	23	5	8
Hunting:			
Persons hunting (1,000)	22	2	2
Days of hunting (1,000)	542	5	36
Per person	25	(B)	(B)

B Sample size too small to report data reliably.

Source: U.S. Department of the Interior, Fish and Wildlife Service, 1985 National Survey of Fishing, Hunting, and Wildlife Associated Recreation (November 1988), pp. 117, 118, 128, and 129.

Table 239.-- COUNTY TENNIS FACILITIES: 1988 AND 1989

[As of December 31]

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Locations:							
1988	89	20	11	1	1	46	10
1989	89	20	11	1	1	46	10
Courts:							
1988	278	44	32	2	2	174	24
1989	282	44	33	2	4	175	24

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County parks and recreation departments.

Table 240.-- WATER RECREATION FACILITIES AND RESOURCES, BY ISLANDS: 1989

Island	Small craft mooring facilities capacity 1/		Miles of sandy shoreline 2/		Number of surfing sites 3/
	Catwalks and piers	Other mooring areas	Total	Primary 4/	
Six major islands .	1,371	705	184.9	24.4	1,600
Hawaii	15	321	19.4	1.2	185
Maui	48	151	32.6	7.9	212
Lanai	28	-	18.2	-	99
Molokai	3	29	23.2	-	180
Oahu	1,195	168	50.3	12.5	594
Kauai	82	36	41.2	2.8	330

1/ As of December 31, 1989. At that time, 1,827 vessels were moored, vacancies numbered 252, and there were 2,744 valid applications on file.

2/ Surveyed in 1962. For specific beaches, see table 136.1.

3/ Surveyed in 1971. A surfing site is defined as "a specific wave-breaking zone caused by a shoal and having sufficient consistency to be identified as a surfable riding area, either seasonally or in a combination of seasons, e.g., Queen's Surf, Waikiki."

4/ Safe, clean, accessible, and generally suitable for swimming.

Source: Hawaii State Department of Transportation, Harbors Division, Small Craft Mooring Facilities Utilization Report (quarterly); Hawaii State Department of Planning and Economic Development, Hawaii's Shoreline (1965), p. 7; Surfing Education Association, The 1971 Statewide Surfing Site Survey, Vol. 1, p. 93.

Table 241.-- TRANSPACIFIC YACHT CLUB'S HONOLULU RACE ENTRIES AND WINNING TIMES: 1979 TO 1989

[The Honolulu Race, sponsored by the Transpacific Yacht Club of Los Angeles, is run biennially between San Pedro, California, and Diamond Head Lighthouse, a great circle distance of 2,217 nautical miles]

Year	Boats entered	Winning times (days, hours, minutes, seconds)	
		Elapsed	Corrected
1979	80	11:18:01:04	11:14:42:51
1981	70	8:11:02:31	7:21:44:48
1983 1/ ...	66	9:01:53:48	7:22:55:15
1985	65	13:06:31:19	9:14:07:40
1987	55	8:12:00:40	8:00:56:41
1989	45	8:12:50:35	8:02:54:08

1/ A catamaran, not officially entered in the race, recorded an elapsed time of 7:7:30:56.

Source: Jack Smock, Transpac, A History of the Great Race to Honolulu ... (1980), pp. 552 and 669; The Transpacific Yacht Club, 1982-83 Transpacific Yacht Club Year Book (1983); Honolulu Advertiser, July 12, 1983, p. B-1, July 4, 1985, p. E-3, July 19, 1985, p. G-3, and July 10, 1989, p. C-1; Honolulu Star-Bulletin, July 15, 1983, p. C-3; Sunday Star-Bulletin and Advertiser, July 10, 1983, p. F-1; Waikiki Yacht Club, records.

Table 242.-- SURFING COMPETITION EXPENDITURES: 1986

[Dollars]

Kind of event	Total	Direct	Indirect
All events	4,246,818	2,440,700	1,806,118
Boardsurfing	2,318,202	1,332,300	985,902
Windsurfing	1,902,516	1,093,400	809,116
Bodysurfing	26,100	15,000	11,100

Source: Mike Markrich, Economic Effects of Surfing Activities in Hawaii (University of Hawaii Sea Grant College Program and Department of Business and Economic Development, Ocean Resources Branch, December 1988), p. 19.

Table 243.-- HAWAIIAN CANOE RACING EXPENDITURES: 1986

[$1,000]

Type of expenditure	Amount
Total expenditure	3,874
Long-distance races	614
Regattas	2,590
Equipment	670

Source: Mike Markrich, Outrigger Canoe Racing in Hawaii: Its Economic Impact (University of Hawaii Sea Grant College Program and Department of Business and Economic Development, Ocean Resources Branch, July 1988), p. 31.

Table 244.-- IRONMAN TRIATHLON WORLD CHAMPIONSHIP REGISTRANTS, FINISHERS, AND WINNING TIMES: 1985 TO 1990

Year	Number of registrants	Number of finishers	Winning time (hr., min., sec.)	
			Men	Women
1985	1,018	965	8:50:54	10:25:22
1986	1,039	951	8:28:37	9:49:14
1987	1,381	1,286	8:34:13	9:35:25
1988	1,277	1,189	8:31:00	9:01:01
1989	1,286	1,231	8:09:15	9:00:56
1990	1,386	1,235	8:28:17	9:13:43

Source: Bud Light Ironman Triathlon World Championship, records.

Table 245.-- HONOLULU MARATHON REGISTRANTS, FINISHERS AND WINNING TIMES: 1984 TO 1989

Year	Number of registrants	Number of finishers	Winning time (hr., min., sec.)	
			Men	Women
1984	10,653	8,166	2:16:25	2:42:49
1985	9,310	8,287	2:12:08	2:35:51
1986	10,354	8,563	2:11:43	2:31:01
1987	10,413	8,793	2:18:26	2:35:11
1988	10,205	8,808	2:12:47	2:41:52
1989	10,814	9,673	2:11:47	2:31:50

Source: Honolulu Marathon Association, records.

Table 246.-- TOTAL ATTENDANCE AT FOOTBALL BOWL GAMES: 1984-1985 TO 1989-1990 SEASONS

Bowl	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989	1989-1990
Aloha Bowl	37,996	30,574	20,666	20,093	18,967	39,267
Hula Bowl	25,890	20,943	15,774	26,737	28,896	20,274
Pro Bowl	48,124	47,906	46,799	46,692	46,464	45,135

Source: Hawaii State Department of Accounting and General Services, Stadium Authority, records.

Table 247.-- VARSITY SPORTS SUMMARY FOR THE UNIVERSITY OF HAWAII AT MANOA: 1989-1990

[Includes only games played against four-year collegiate teams]

Sports	Games played 1/				Home games	
	Total	Won	Lost	Tied	Home dates	Attendance
Baseball	62	37	24	1	46	118,305
Basketball (men's)	35	25	10	-	16	93,565
Basketball (women's) ..	30	26	4	-	17	9,549
Football	13	9	3	1	10	445,348
Volleyball (men's)	27	18	9	-	12	13,488
Volleyball (women's) ..	32	29	3	-	18	37,760

1/ Volleyball data refer to matches.

Source: University of Hawaii, Office of Intercollegiate Athletics, Sports Information Office, records.

Table 248.-- PUBLIC HIGH SCHOOL INTERSCHOLASTIC SPORTS: 1989-1990 SEASON

Sport	Players	Games 1/	Attendance	Expenditure 2/ (dollars)
Baseball ..	Boys	382	67,121	276,982
Basketball	Boys and girls	1,014	135,316	513,464
Football ..	Boys	266	417,332	809,758

1/ Junior varsity and varsity games, based on published schedules from public school leagues. Data exclude pre-season and post-season games.

2/ Data on expenditures and encumbrances reflect figures from the general and school trust funds.

Source: Hawaii State Department of Education, Office of Instructional Services, Athletics Program, records.

Table 249.-- PROFESSIONAL BOXING: 1984 TO 1989

Year	Number of promoters	Number of shows	Paid attendance	Gross receipts (dollars)
1984 ...	1	9	14,937	156,260.00
1985 ...	1	9	18,278	201,852.00
1986 ...	2	6	7,181	67,105.00
1987 ...	1	2	1,152	15,560.00
1988 ...	-	-	-	-
1989 ...	3	10	14,869	218,810.00

Source: Hawaii State Department of Commerce and Consumer Affairs, Boxing Commission, records.

Table 250.-- DOG LICENSES ISSUED, BY ISLANDS: 1984 TO 1989

[Dogs are licensed on a biennial basis]

Year	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
1984	19,661	1,974	1,372	38	119	15,832	326
1985	33,598	2,809	2,171	35	111	27,654	818
1986	18,713	2,078	1,204	12	39	15,151	229
1987	28,208	3,287	1,633	35	65	22,573	615
1988	21,040	3,181	1,517	13	145	15,968	216
1989	27,147	3,759	2,321	14	105	19,500	1,448

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

Section 8

ELECTIONS

This section presents data on election districts, registered voters, votes cast, campaign expenditures, elected officials, and legislative activity.

About 444,000 persons were registered to vote in the general election of November 8, 1988, and more than 368,000 actually voted. The number voting amounted to 43 percent of the 815,000 Hawaii residents of voting age at that time. The latter figure included around 148,000 aliens, inmates of mental and penal institutions, and members of the armed forces and their dependents, groups that are either ineligible or unlikely to vote in Island elections. Among registered voters, females outnumbered males and Democrats were far more numerous than Republicans. Campaign expenditures for the 1988 primary and general elections (other than for federal offices) exceeded $10.8 million.

Hawaii has 2 Congressional, 25 Senatorial, 51 Representative, and 9 Councilmanic districts. It also contains 15 Soil Conservation districts, 30 active Neighborhood Board districts, and 292 election precincts.

Elected officials in Hawaii include the President and Vice President, two U.S. Senators, two U.S. Representatives, the Governor and Lieutenant Governor, 25 State Senators, 51 State Representatives, and various county officials. Persons of Hawaiian blood also vote for the Board of Trustees of the Office of Hawaiian Affairs. The minimum voting age is 18 years.

The 1989 State Legislature, with 76 members, included 58 males, 24 persons under 40 years of age, 28 persons of Japanese ancestry, 20 persons born in places other than Hawaii, and 66 Democrats.

In its 1990 session, the State Legislature considered 6,422 bills; 384 were passed and 349 became law. The Legislature also considered 1,287 resolutions, of which 549 were adopted.

The official results of primary, general, and special elections are published by the Office of the Lieutenant Governor. Additional information is often available from the various county clerks. Earlier figures for Hawaii appear in Historical Statistics of Hawaii, Section 24. National statistics appear in the Statistical Abstract of the United States: 1990, Section 8.

Table 251.-- ELECTION DISTRICTS AND POPULARLY ELECTED OFFICIALS: NOVEMBER 1988 AND 1990

Office	Election districts		Officials to be elected 1/		Total elected officials, including holdover	
	1988	1990	1988	1990	1988	1990
Federal offices:						
President and Vice President	...	...	2	-	2	2
U.S. Senate	...	...	1	-	2	2
U.S. House of Representatives	2	2	2	2	2	2
State offices:						
Governor and Lt. Governor	...	...	-	2	2	2
State Senate	25	25	15	12	25	25
State House of Representatives	51	51	51	51	51	51
Board of Education	2	2	8	6	13	13
Office of Hawaiian Affairs	...	...	4	5	9	9
Soil and water conservation dist. 2/	15	15	...	...	45	45
County offices:						
Mayor	...	...	3	2	4	4
Council:						
Hawaii	...	...	9	-	9	9
Maui	...	...	9	9	9	9
Honolulu	9	9	3	9	9	9
Kauai	...	...	7	7	7	7
Prosecuting Attorney	...	...	3	-	3	3
Neighborhood Boards 3/	30	30	-	-	438	438
Precincts	289	292	-	-	-	-

1/ Including vacancies to be filled.

2/ Three seats are elected and two are appointed for each district. Elections are an ongoing process.

3/ Elections are conducted every other year in odd-numbered years.

Source: Office of the Lieutenant Governor, Manual for Candidates, 1990 Elections, State of Hawaii, pp. 4-5, and records; Hawaii State Department of Land and Natural Resources, records; Honolulu Neighborhood Commission, records.

Table 252.-- POPULARLY ELECTED OFFICIALS OF STATE AND LOCAL GOVERNMENTS: 1977 TO 1987

Year	Elected State and local officials			Elected State officials	Elected local officials
	Number	Rank 1/	Rate 2/		
1967	184	50	2.5	89	95
1977	172	50	1.9	87	85
1987	160	50	1.5	91	69

1/ Among the 50 States.

2/ Per 10,000 population. In 1987, Hawaii ranked 50th among the 50 States in this rate.

Source: U.S. Bureau of the Census, 1987 Census of Governments, Vol. 1, Government Organization, No. 2, Popularly Elected Officials, GC87(1)-2, January 1990, table 2.

Table 253.-- POPULATION OF VOTING AGE AND PERCENT REGISTERED AND VOTING: 1900 TO 1960

Year	Minimum voting age	Voting age population 1/	Number registered 2/	Number voting 2/	Percent	
					Reg.	Voting
1900	21	104,272	11,218	10,163	10.8	9.7
1910	21	117,587	14,442	13,541	12.3	11.5
1920	21	139,700	26,335	22,833	18.9	16.3
1930	21	192,802	52,149	43,544	27.0	22.6
1940	21	232,649	87,312	74,538	37.5	32.0
1950	21	288,637	141,319	118,704	49.0	41.1
1960	20	360,193	202,059	188,206	56.1	52.3

1/ Census counts, including those ineligible because of alien status, military status, illiteracy, or sex. Women first became eligible in 1920.

2/ General election data.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (1977), pp. 599-600; U.S. Bureau of the Census, decennial reports.

Table 254.-- POPULATION OF VOTING AGE AND PERCENT VOTING: 1960 TO 1990

[As of November. Resident population 20 years old and over through 1970 and 18 years and over in 1972 and later years. Includes armed forces stationed in Hawaii]

Year	Persons of voting age	Percent casting votes	
		For Presidential Electors	For U.S. Representatives
1960	371,000	49.7	49.2
1962	390,000	(X)	49.9
1964	404,000	51.3	56.9
1966	417,000	(X)	49.9
1968	439,000	53.8	55.3
1970	473,000	(X)	44.0
1972	547,000	49.4	50.3
1974	586,000	(X)	44.3
1976	624,000	46.7	47.0
1978	657,000	(X)	38.6
1980	697,000	43.5	40.2
1982	728,000	(X)	40.9
1984	757,000	44.4	36.4
1986	784,000	(X)	42.2
1988	815,000	43.5	41.7
1990	1/ 854,000	(X)	...

X Not applicable.

1/ Series A and B projections.

Source: U.S. Bureau of the Census, "Projections of the Population of Voting Age for States: November 1980," Current Population Reports, Series P-25, No. 879, March 1980; "Projections of the Population of Voting Age for States: November 1982," Current Population Reports, Series P-25, No. 916, July 1982; "Projections of the Voting-Age Population for States" November 1990," Current Population Reports, Series P-25, No. 1059, April 1990.

Table 255.-- POPULATION ELIGIBLE AND INELIGIBLE TO VOTE: NOVEMBER 1988

[In thousands]

Group	All ages	Under 18 years	18 years and over		
			Total	Eligible	Ineligible
Total 1/	1,102	287	815	2/ 667	148
Aliens 3/	75	13	62	-	62
Armed forces 4/	57	-	57	2	55
Military dependents 4/ ..	70	40	30	1	29
All others 5/	900	234	666	664	2

1/ Total interpolated from present report, table 2; 18 and over from present report, table 254.

2/ Of the 670,000 persons eligible to vote in the election of November 1988, 66.5 percent were registered and 55.3 percent cast ballots.

3/ From 1980 Census of Population, PC80-1-D13, table 194.

4/ Total from present report, table 2; age distribution from 1980 data in DPED Statistical Report 163, table 4; eligibility from 1983 survey in Data Book 1984, table 416.

5/ Total and age distribution by subtraction; eligibility breakdown allows for institutionalized felons and mental patients, from Data Book 1989, tables 73 and 124.

Source: Estimated by Hawaii State Department of Business, Economic Development & Tourism from sources cited in above footnotes.

Table 256.-- PERCENT OF CIVILIAN POPULATION REGISTERED OR VOTING IN ELECTIONS, 1986 AND 1988, AND BY COUNTIES, 1988

[Based on July 1 estimates of civilian population, including military dependents, aliens, and persons under 18 years of age]

	The State		Counties: 1988			
Election	1986	1988	Hawaii	Maui	Honolulu	Kauai
Registered:						
Primary	39.6	40.3	42.2	40.0	39.4	50.0
General	41.7	42.6	44.5	43.5	41.6	51.8
Voting:						
Primary	28.0	26.5	28.0	22.6	25.8	41.5
General	34.3	35.4	37.6	35.0	34.6	43.9

Source: Office of the Lieutenant Governor, Result of Votes Cast for each election; Department of Business and Economic Development, unpublished estimates of civilian population by counties.

Table 257.-- REPORTED VOTING AND REGISTRATION, BY SEX: NOVEMBER 1988

[Number 18 and over in thousands. Percentages based on a sample]

Sex and race	Civilians 18 years old and over	Reported registered		Reported voted	
		Percent	Standard error	Percent	Standard error
Total	745	61.0	1.9	54.8	1.9
Male	335	60.3	2.8	55.5	2.9
Female	410	61.6	2.5	54.1	2.6
White	238	63.4	3.3	55.1	3.4

Source: U.S. Bureau of the Census, "Voting and Registration in the Election of November 1988 (Advance Report)," Current Population Reports, Population Characteristics, Series P-20, No. 435, February 1989, p. 7.

Table 258.-- REGISTERED VOTERS AND VOTES CAST IN PRIMARY AND GENERAL ELECTIONS: 1970 TO 1990

Type and date of election	Registered voters			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
Primary elections:					
1970: Oct. 3	282,470	(NA)	(NA)	202,401	71.7
1972: Oct. 7	326,906	(NA)	(NA)	203,160	62.1
1974: Oct. 5	333,527	(NA)	(NA)	235,982	70.8
1976: Oct. 2	353,249	175,276	177,973	251,457	71.2
1978: Oct. 7	387,673	190,796	196,877	289,029	74.6
1980: Sept. 20 ...	384,858	186,982	197,876	264,041	68.6
1982: Sept. 18 ...	385,307	185,763	199,544	272,691	70.8
1984: Sept. 22 ...	398,858	190,525	208,333	221,957	55.6
1986: Sept. 20 ...	398,197	189,655	208,542	281,352	70.7
1988: Sept. 17 1/	419,441	199,643	220,225	275,673	65.7
1990: Sept. 22 2/	436,323	187,149	208,526	276,407	63.3
General elections:					
1970: Nov. 3	291,681	146,630	145,051	247,740	84.9
1972: Nov. 7	337,837	169,896	167,941	286,593	84.8
1974: Nov. 5	343,404	171,072	172,332	272,545	79.4
1976: Nov. 2	363,045	180,265	182,780	309,025	85.1
1978: Nov. 7	395,262	194,412	200,850	292,690	74.0
1980: Nov. 4	402,795	195,804	206,991	318,026	79.0
1982: Nov. 2	405,005	195,259	209,746	325,459	80.4
1984: Nov. 6	418,904	200,424	218,480	349,253	83.4
1986: Nov. 4	419,794	200,233	219,561	344,416	82.0
1988: Nov. 8	443,742	211,539	232,203	368,567	83.0

NA Not available.

1/ Distribution by sex as of September 1, 1988, 16 days before the election.

2/ Distribution by sex as of September 20, 1990, two days before the election.

Source: Office of the Lieutenant Governor, Result of Votes Cast for each election, and records.

Table 259.-- REGISTERED VOTERS AND VOTES CAST IN GENERAL ELECTION, 1988, AND PRIMARY ELECTION, 1990, BY COUNTIES

[Excludes persons registered for only the Office of Hawaiian Affairs election but not for the regular primary or general elections]

Election and county	Registered voters 1/			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
GENERAL ELECTION: 1988					
State total ..	443,742	211,539	232,203	368,566	83.1
Hawaii	52,221	25,177	27,044	44,195	84.6
Maui	40,436	19,395	21,041	32,534	80.5
Honolulu	325,614	154,451	171,163	270,222	83.0
Kauai	25,471	12,516	12,955	21,615	84.9
PRIMARY ELECTION 1990 1/					
State total ..	436,323	187,149	208,526	276,407	63.3
Hawaii	53,604	22,367	24,402	39,347	73.4
Maui	41,292	16,438	18,094	27,524	66.7
Honolulu	314,832	136,666	153,750	188,635	59.9
Kauai	26,595	11,678	12,280	20,901	78.6

1/ Registration by sex from tabulation made September 20, 1990, two days before the election.

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election ... 1988, and records.

Table 260.-- PARTY OF VOTES CAST IN PRIMARY ELECTIONS: 1980 TO 1990

Primary election	Total votes cast	Democratic	Republican	Other parties	Non-partisan	Invalidated	Blank
1980	264,041	250,226	10,628	1,089	1,881	217	-
1982	272,691	245,426	13,262	12,681	1,013	309	-
1984	221,957	177,102	43,306	695	455	399	-
1986	281,352	235,559	44,304	-	1,023	466	-
1988	275,653	221,349	50,923	563	1,340	1,180	298
1990	276,407	221,839	48,563	963	3,847	1,195	

Source: Office of the Lieutenant Governor, Results of Votes Cast, Primary Election for years shown, and records.

Table 261.-- PARTY OF VOTES CAST IN PRIMARY ELECTION, BY COUNTIES: SEPTEMBER 22, 1990

Party	State total	Hawaii County	Maui County	City and County of Honolulu	Kauai County
Total votes cast	276,407	39,347	27,524	188,635	20,901
Democratic	221,839	33,945	22,201	146,272	19,421
Libertarian	963	130	108	691	34
Republican	48,563	4,524	4,665	38,279	1,095
Non-partisan	3,847	619	420	2,654	154
Invalidated or blank	1,195	129	130	739	197

Source: Office of the Lieutenant Governor, records.

Table 262.-- VOTES CAST FOR CANDIDATES FOR MAJOR OFFICES: PRIMARY ELECTION, SEPTEMBER 22, 1990

Office, party, and candidate	Votes	Office, party, and candidate	Votes
U.S. SENATE		U.S. HOUSE, DIST. 2 (SPEC.) 1/	
Democrat:		Mink, P. (D)	51,841
Akaka, D.	180,235	Hannemann, M. (D)	50,164
Snider, P.	18,427	Menor, R. (D)	23,629
Republican:		Poepoe, A. (R)	8,872
Saiki, P.	39,847	Monsef, S. (R)	2,264
Sutton, R.	2,443	Black, A.D. (D)	1,242
Zimmerman, B.	2,096	Mallan, L. (L)	791
Hustace, M.	2,049		
Libertarian:		GOVERNOR	
Schoolland, K.	583		
		Democrat:	
U.S. HOUSE, DIST. 1		Waihee, J.	179,383
		Hopkins, B.	9,735
Democrat:		Garner, R.	9,112
Abercrombie, N.	43,480	Marshall, E.	4,517
Mizuguchi, N.	30,942	Republican:	
Matsunaga, M.	21,128	Hemmings, F.	38,827
Republican:		Mednick, L.	1,343
Liu, M.	11,154	Hirayasu, C.	1,049
Hutchinson, F.	9,150	Izuka, I.	844
Sabey, J.	885	U'o, H.	593
Libertarian:		Measel, R.	448
Taylor, R.	273	Libertarian:	
		Smith, T.D.	534
U.S. HOUSE, DIST. 2 (REG.)		Non-partisan:	
		Ross, P.H.	1,772
Democrat:			
Mink, P.	47,998	LIEUTENANT GOVERNOR	
Hannemann, M.	44,536		
Menor, R.	20,845	Democrat:	
Crozier, M.	6,522	Cayetano, B.	177,705
Republican:		Republican:	
Poepoe, A.	13,363	Beamer, B.	35,172
Monsef, S.	4,354	Libertarian:	
Pillos, Jose	892	Fritts, A.	555
Libertarian:		Non-partisan:	
Mallan, L.	313	Kimmel, J.	1,754

Continued on next page.

Table 262.-- VOTES CAST FOR CANDIDATES FOR MAJOR OFFICES: PRIMARY ELECTION, SEPTEMBER 22, 1990 -- Con.

Office, party, and candidate	Votes
HAWAII CO. MAYOR (SPECIAL) 2/	
Democrat:	
Inouye, L.	13,625
Yamashiro, S.	13,549
Carpenter, D.	3,874
Nobriga, A.	957
4 others	841
Republican:	
Osorio, E.	1,390
Basque, D.	742
Hodkinson, J.	621
Hapai, A.	537
5 others	577
Libertarian:	
Anderson, A.	70
Non-partisan:	
6 candidates	424
MAUI CO. MAYOR	
Democrat:	
Cravalho, E.	8,215
Lindsey, L.	5,624
Miura, M.	4,030
Santos, V.	3,303
MAUI CO. MAYOR -- Con.	
Republican:	
Crockett Lingle, L.	3,758
Andrade, R.	482
Libertarian:	
Azby	57
Non-Partisan:	
Akuna, R.	151
Galloway, M.	90
KAUAI CO. MAYOR	
Democrat:	
Yukimura, JoAnn	9,817
Malapit, E.	7,963
Shaw, R.	944
Nelson, T.	41
Rich, J.	39
Republican:	
Barretto, J.	580
Wolff, M.	262
Sousa, J.	80
Non-partisan:	
Thomas, R.	48

1/ To fill unexpired term of former Rep. Akaka, appointed to U.S. Senate.
2/ To fill unexpired term of late Mayor Akana.
Source: Office of the Lieutenant Governor, printouts.

Table 263.-- NUMBER OF PRECINCTS, REGISTERED VOTERS, AND VOTES CAST, BY ISLANDS: NOVEMBER 8, 1988

Island	Number of precincts	Registered voters	Votes cast
State total	289	443,742	368,567
Hawaii	51	52,221	44,195
Maui	31	36,668	29,945
Lanai	1	888	721
Molokai: Molokai District	4	2,782	1,792
Kalawao District	1	98	76
Oahu 1/	183	325,614	270,223
Kauai	17	25,338	21,562
Niihau	1	133	53

1/ Including the Northwestern Hawaiian Islands, part of the [illegible] Precinct of the 20th Representative District, in Waimanalo, Oahu

Source: Office of the Lieutenant Governor, printouts.

Table 264.-- AGE AND SEX OF REGISTERED VOTERS: NOVEMBER 8, 1988

Age	Both sexes	Male	Female
All ages	443,742	211,539	232,203
18 or 19 years	11,508	5,169	6,339
20 to 29 years	71,159	31,952	39,207
30 to 39 years	100,760	46,899	53,861
40 to 49 years	85,239	40,890	44,349
50 to 64 years	97,983	46,057	51,326
65 years and over	77,067	39,967	37,100
Not reported	26	5	21

Source: Office of the City Clerk, City and County of Honolulu, records.

Table 265.-- VOTES CAST FOR MAJOR OFFICES: GENERAL ELECTIONS, 1978 TO 1988

Office and election year	Total votes cast	Democrat		Republican		Other parties: votes
		Candidate	Votes	Candidate	Votes	
PRESIDENT						
1980	303,287	Carter	135,879	Reagan	130,112	37,296
1984	335,846	Mondale	147,154	Reagan	185,050	3,642
1988	354,461	Dukakis	192,364	Bush	158,625	3,472
U.S. SENATOR						
1980	288,006	Inouye, D. ..	224,485	Brown	53,068	10,453
1982	306,410	Matsunaga ...	245,386	Brown	52,071	8,953
1986	328,797	Inouye, D. ..	241,887	Hutchinson .	86,910	-
1988	323,876	Matsunaga ...	247,941	Hustace	66,987	8,948
REPRESENTATIVE TO CONGRESS, DISTRICT 1						
1978	115,412	Heftel	84,552	Spillane ...	24,470	6,390
1980	123,181	Heftel	98,256	Noble	19,819	5,106
1982	149,907	Heftel	134,779	None	-	15,128
1984	138,865	Heftel	114,884	Beard	20,608	3,373
1986 1/	168,377	Hannemann ...	63,061	Saiki	99,683	5,633
1988	177,020	Bitterman ...	76,394	Saiki	96,848	3,778
REPRESENTATIVE TO CONGRESS, DISTRICT 2						
1978	137,957	Akaka	118,272	Isaak	15,697	3,988
1980	157,380	Akaka	141,477	None	-	15,903
1982	148,008	Akaka	132,072	None	-	15,936
1984	136,741	Akaka	112,377	Shipley	20,000	4,364
1986	162,819	Akaka	123,830	Hustace	35,371	3,618
1988	162,808	Akaka	144,802	None	-	18,006
GOVERNOR						
1978	281,587	Ariyoshi	153,394	Leopold	124,610	3,583
1982	315,853	Ariyoshi	141,043	Anderson, D.	81,507	89,303
1986	334,115	Waihee	173,655	Anderson, D.	160,460	-

Continued on next page.

Table 265.-- VOTES CAST FOR MAJOR OFFICES: GENERAL ELECTIONS, 1978 TO 1988 -- Con.

Office and election year	Total votes cast	Democrat		Republican		Other parties: votes
		Candidate	Votes	Candidate	Votes	
MAYOR OF HONOLULU						
1980	219,408	Anderson, E.	152,240	Schweigert .	58,155	9,013
1984	253,853	Anderson, E.	117,841	Fasi	132,875	3,137
1988	263,882	Bornhorst ..	117,479	Fasi	146,403	-

1/ For special election to fill unexpired term of Rep. Heftel, Sept. 20, 1986, see Data Book 1987, table 280.

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election, State of Hawaii for 1978-1988.

Table 266.-- REGISTERED VOTERS AND VOTES CAST FOR THE BOARD OF TRUSTEES OF THE OFFICE OF HAWAIIAN AFFAIRS, BY COUNTIES: NOVEMBER 8, 1988

County	Registered voters			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
State total	63,452	27,970	35,482	48,238	76.0
Hawaii	9,059	4,022	5,037	7,151	78.9
Maui	6,483	2,872	3,611	4,850	74.8
Honolulu	44,056	19,245	24,811	33,177	75.3
Kauai	3,854	1,831	2,023	3,060	79.4

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election ... 1988.

Table 267.-- VOTES CAST FOR MAJOR OFFICES, BY COUNTIES: GENERAL ELECTION, 1988

Office, candidate and party	State total	County of Hawaii	County of Maui	City and County of Honolulu	County of Kauai
PRESIDENT					
Dukakis/Bentsen (D) ...	192,364	24,091	17,532	138,971	11,770
Bush/Quayle (R)	158,625	17,125	12,944	120,258	8,298
Others	3,472	552	374	2,348	198
U. S. SENATOR					
Matsunaga (D)	247,941	30,270	21,461	179,819	16,391
Hustace (R)	66,987	8,868	6,911	48,781	2,427
Others	8,948	1,175	844	6,417	512
REPRESENTATIVE TO CONGRESS, DISTRICT 1					
Saiki (R)	96,848	-	-	96,848	-
Bitterman (D)	76,394	-	-	76,394	-
Others (L)	3,778	-	-	3,778	-
REPRESENTATIVE TO CONGRESS, DISTRICT 2					
Akaka (D)	144,802	33,983	24,673	68,773	17,373
Mallan (L)	18,006	4,242	3,002	9,568	1,194
MAYOR OF HONOLULU					
Fasi (R)	146,403	-	-	146,403	-
Bornhorst (D)	117,479	-	-	117,479	-
MAYOR OF HAWAII					
Akana (R)	19,886	19,886	-	-	-
Carpenter (D)	19,088	19,088	-	-	-
MAYOR OF KAUAI					
Yukimura (D)	15,193	-	-	-	15,193
Aki (R)	5,453	-	-	-	5,453

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election ... 1988.

Table 268.-- CAMPAIGN EXPENDITURES: 1988 ELECTIONS

[Dollars. January 1, 1988 through December 31, 1988]

Election and office	All candidates	Democrats	Republicans	All others
PRIMARY				
All races reported ..	6,605,523	5,112,213	1,197,532	295,778
State Senate	1,083,766	946,393	137,373	-
State Representative	1,417,022	1,186,896	230,098	28
Mayor	2,380,104	1,784,308	588,693	7,103
Prosecuting Attorney	298,611	12,007	-	286,604
Council Member	1,426,020	1,182,609	241,368	2,043
GENERAL				
All races reported ..	3,378,801	1,633,536	1,611,693	133,572
State Senate	515,022	325,465	189,557	-
State Representative	749,969	514,054	235,776	139
Mayor	1,706,393	578,406	1,127,987	-
Council Member	273,984	215,611	58,373	-
Board of Education	62,775	-	-	62,775
Office of Hawaiian Affairs	70,658	-	-	70,658
TOTAL 1/				
All races reported ..	10,815,765	7,196,336	3,156,800	462,629
State Senate	1,691,602	1,348,318	343,284	-
State Representative	2,384,950	1,859,430	525,353	167
Mayor	4,421,621	2,468,914	1,945,453	7,254
Prosecuting Attorney	334,751	16,972	-	317,779
Council Member	1,847,455	1,502,702	342,710	2,043
Board of Education	63,969	-	-	63,969
Office of Hawaiian Affairs	71,417	-	-	71,417

1/ Includes supplemental elections, not shown separately.
Source: Hawaii State Campaign Spending Commission, September 8, 1989.

Table 269.-- NEIGHBORHOOD BOARD ELECTIONS, FOR OAHU: 1981 TO 1989

Year	Number of boards: In operation, Dec. 31	Number of boards: Holding elections	Board seats elected	Ballots mailed 1/	Voters 1/ (ballots cast)
1981	28	28	416	294,735	48,745
1983	28	28	416	231,622	61,425
1985	30	30	438	255,045	74,583
1987	30	30	438	260,155	83,072
1989	30	30	438	273,954	91,285

1/ Revised from Data Book 1988, table 279.
Source: Neighborhood Commission, City and County of Honolulu, records.

Table 270.-- PARTY MEMBERSHIP OF COUNTY COUNCILS: 1988 AND 1990

[As of January]

County	Total seats	Democrats		Republicans		Other parties or vacant	
		1988	1990	1988	1990	1988	1990
All counties	34	29	31	5	3	-	-
Hawaii	9	7	9	2	-	-	-
Maui	9	8	8	1	1	-	-
Honolulu	9	7	7	2	2	-	-
Kauai	7	7	7	-	-	-	-

Source: The Chamber of Commerce of Hawaii, Who's Who in Government, State of Hawaii, 1989-1990, pp. 32-39; respective County Council offices.

Table 271.-- LENGTH OF LEGISLATIVE SESSIONS: 1985 TO 1990

Year	Regular sessions		Special sessions	
	Date convened	Length 1/	Date convened	Length 1/
1985	Jan. 16	97	None	-
1986	Jan. 15	99	July 24	7
1987	Jan. 21	100	None	-
1988	Jan. 20	98	May 20	4
1989	Jan. 18	99	None	-
1990	Jan. 17	108	None	-

1/ Calendar days, including Saturdays, Sundays, holidays, and mandatory five-day recess required by Art. III, sec. 10, of the Hawaii Constitution.

Source: Legislative Reference Bureau, records.

Table 272.-- PARTY MEMBERSHIP OF THE STATE LEGISLATURE: 1979 TO 1989

Regular session	House of Representatives				Senate			
	Total	Demo-crats	Repub-licans	Other	Total	Demo-crats	Repub-licans	Other
1979 ..	51	42	9	-	25	18	7	-
1981 ..	51	39	12	-	25	17	8	-
1983 ..	51	43	8	-	25	20	5	-
1985 ..	51	40	11	-	25	21	4	-
1987 ..	51	40	11	-	25	20	5	-
1989 ..	51	45	6	-	25	22	3	-

Source: Session Laws of Hawaii, 1979-1987; President of the Senate; Speaker of the House of Representatives.

Table 273.-- COMPOSITION OF THE 1989 HAWAII STATE LEGISLATURE

Subject	House of Representatives			Senate		
	Total	Democrats	Republicans	Total	Democrats	Republicans
All members	51	45	6	25	21	4
Island of residence:						
Hawaii	6	5	1	3	3	-
Maui	4	4	-	2	1	1
Lanai	-	-	-	-	-	-
Molokai	-	-	-	-	-	-
Oahu	39	34	5	19	16	3
Kauai	2	2	-	1	1	-
Niihau	-	-	-	-	-	-
Year born:						
1928 or earlier	5	5	-	3	2	1
1929 to 1938	10	9	1	4	4	-
1939 to 1948	19	16	3	11	8	3
1949 to 1958	16	14	2	6	6	-
1959 or later	1	1	-	1	1	-
Sex:						
Male	40	35	5	18	16	2
Female	11	10	1	7	5	2
Ethnic stock:						
Caucasian, except Portuguese	11	9	2	6	4	2
Chinese	5	5	-	2	2	-
Filipino	4	4	-	1	1	-
Japanese	20	19	1	8	7	1
Portuguese	1	1	-	-	-	-
Other (unmixed) 1/	-	-	-	-	-	-
Mixed: Part-Hawaiian	7	6	1	7	6	1
Mixed: Non-Hawaiian	3	1	2	1	1	-
Place of birth:						
Hawaii	36	33	3	20	19	1
Mainland U.S.	11	8	3	5	3	2
U.S. terr. or poss.	-	-	-	-	-	-
Foreign country	4	4	-	-	-	-

1/ Black, Hawaiian, Korean, Puerto Rican, Samoan, or other ethnic stock.

Source: Chamber of Commerce of Hawaii, Who's Who in Government, State of Hawaii, 1989-1990 (1989); Clerk of the Senate, records; Chief Clerk, House of Representatives, records.

Table 274.-- LEGISLATIVE BILLS AND RESOLUTIONS, BY DISPOSITION: 1988 TO 1990

Action	1988		1989: Regular	1990: Regular
	Regular	Special		
House bills:				
Carried over from previous year .	1,752	1	-	1,717
Introduced	1,660	-	1,923	1,459
Enacted 1/	204	1	206	202
Vetoed 2/........................	14	-	17	13
Became law 3/	188	1	189	187
Senate bills:				
Carried over from previous year .	1,542	1	-	1,821
Introduced	1,425	-	2,047	1,425
Enacted 1/, 4/	232	1	226	182
Vetoed 2/	14	-	18	18
Became law 4/ 5/	216	1	208	162
House resolutions:				
Offered	493	-	423	405
Adopted	261	-	235	233
House concurrent resolutions:				
Offered	392	-	397	347
Adopted	85	-	96	100
Senate resolutions:				
Offered	249	-	255	262
Adopted	128	-	139	137
Senate concurrent resolutions:				
Offered	248	-	280	273
Adopted	58	-	77	79

1/ Includes bills for constitution amendments: H.B. 2688, H.B. 3164, S.B. 2021, and S.B. 2718 in the 1988 regular session, and H.B. 2051, H.B. 2053, S.B. 32, and S.B. 103 in 1990. The 1990 figure also includes H.B. 1718, which contains a constitutional amendment.

2/ The 1988 regular session total includes H.B. 2032 and S.B. 3264, which were returned by the Governor and passed by the Legislature during the 1988 special session.

3/ The 1990 total includes H.B. 1718, which contains a constitutional amendment.

4/ The 1989 figure includes S.B. 636, which contained one vetoed item.

5/ The 1990 total includes S.B. 2794, which contains a vetoed item.

Source: Legislative Reference Bureau, records.

Section 9

GOVERNMENT FINANCES AND EMPLOYMENT

This section presents statistics relating to the revenues, expenditures, debt, and civilian employment of Federal, State and county governments in Hawaii.

Local government is vested in one combined city-county (Honolulu, consisting of the Island of Oahu and several outlying islets), three non-metropolitan counties (Hawaii, Kauai, and Maui), and one area (Kalawao County) administered by the State Department of Health. Separate municipal governments do not exist.

Tax collections by Federal, State and county governments in fiscal 1989 reached $6.5 billion, twice the level reported eight years earlier. The 1989 total included $3.7 billion in U.S. taxes, $2.3 billion in State taxes, and $449 million in county taxes, licenses and fees. Individual income taxes accounted for 86 percent of Federal collections and 34 percent of State collections in Hawaii in 1989. State revenue receipts totaled $3.6 billion, chiefly from the general excise and use tax ($1.0 billion), individual income tax ($767 million) and Federal grants-in-aid ($480 million). The largest expenditure item in the State accounts for 1989 was education, with $987 million (out of $3.3 billion) going to the University of Hawaii and public schools and libraries. The counties, in contrast, depended largely on the real property tax and grants-in-aid for their revenues, and reported police and fire protection as their largest single expenditure item. Assessed valuation of the State doubled between 1984 and 1990, reaching $100 billion by the end of the period; of this total, $27 billion was exempt from taxation. Public bonded debt outstanding at the end of 1989 stood at $3.7 billion.

Total government employment in 1989 averaged 101,000, about 14 percent over the 1980 average. The 1989 total included 34,000 Federal workers, 54,000 persons employed by the State, and 14,000 persons on county payrolls. State civil service employees as of mid-1989 numbered 20,000.

Important sources for statistics on government in Hawaii include the U.S. Census of Governments and various annual publications of the Bureau of the Census, reports of the U.S. Treasury Department, Hawaii State Departments of Accounting and General Services, Budget and Finance, and Taxation, and the County auditors and finance directors, and an annual compilation issued by the Tax Foundation of Hawaii, Government in Hawaii: A Handbook of Financial Statistics. Data extending back to the middle of the 19th century are summarized in Historical Statistics of Hawaii, Section 25. Comparable Mainland statistics appear in the Statistical Abstract of the United States: 1990, Sections 9 and 10.

Table 275.-- FEDERAL, STATE, AND COUNTY TAX COLLECTIONS: 1970 TO 1989

[Thousands of dollars]

Year	All levels	Federal 1/	State and counties 2/		
			Total	State	Counties
1970	1,061,376	602,998	458,378	438,397	15,981
1971	1,105,657	608,051	497,606	480,690	16,916
1972	1,162,700	632,583	530,117	512,047	18,070
1973	1,327,150	735,358	591,792	571,689	20,104
1974	1,512,414	840,089	672,325	650,855	21,470
1975	1,852,801	1,087,520	765,281	743,923	21,358
1976	1,821,934	945,899	876,035	850,639	25,396
1977	2,038,318	1,106,687	931,631	905,949	25,682
1978	2,228,780	1,208,481	1,020,299	986,182	34,117
1979	2,620,194	1,455,225	1,164,969	1,127,677	37,292
1980	2,966,218	1,670,459	1,295,669	1,255,622	40,047
1981	3,245,507	1,826,363	1,419,144	1,371,490	47,655
1982	3,314,106	1,876,628	1,437,478	1,132,699	304,779
1983	3,451,664	1,897,858	1,553,806	1,225,010	328,796
1984	3,655,283	1,980,467	1,674,816	1,331,551	343,265
1985	3,922,942	2,116,773	1,806,169	1,440,553	365,616
1986	4,296,653	2,337,028	1,959,625	1,562,195	397,429
1987	4,997,831	2,809,135	2,188,696	1,776,430	412,266
1988 3/ .	5,765,935	3,310,750	2,455,185	2,033,181	422,004
1989	6,464,598	3,731,845	2,732,753	2,283,891	448,862

1/ Fiscal years ended June 30 through 1976 and September 30 thereafter.

2/ Fiscal years ended June 30. Totals include taxes collected from visitors and other nonresidents.

3/ Revised from Data Book 1989, table 269.

Source: Tax Foundation of Hawaii, Government in Hawaii: A Handbook of Financial Statistics (annual).

Table 276.-- TAX COLLECTIONS RELATIVE TO POPULATION AND PERSONAL INCOME, BY LEVEL OF GOVERNMENT: 1970 TO 1989

[Data include taxes collected in Hawaii from visitors and other nonresidents. Revised from Data Book 1989, table 270]

Year	Per capita collections 1/ (dollars)			Collections as a percent of personal income 2/		
	All levels	Federal 3/	State and counties 4/	All levels	Federal 3/	State and counties 4/
1970 ..	1,376	781	594	28.1	16.0	12.2
1971 ..	1,379	759	621	27.2	15.0	12.3
1972 ..	1,404	764	640	26.0	14.1	11.9
1973 ..	1,558	864	695	26.7	14.8	11.9
1974 ..	1,742	968	775	26.5	14.7	11.8
1975 ..	2,091	1,227	864	30.1	17.7	12.4
1976 ..	2,015	1,046	969	27.3	14.2	13.1
1977 ..	2,220	1,205	1,015	28.3	15.3	12.9
1978 ..	2,392	1,297	1,095	27.7	15.0	12.7
1979 ..	2,749	1,527	1,222	29.0	16.1	12.9
1980 ..	3,061	1,724	1,337	28.9	16.3	12.6
1981 ..	3,311	1,863	1,448	29.4	16.5	12.8
1982 ..	3,322	1,881	1,441	28.2	16.0	12.3
1983 ..	3,389	1,864	1,526	26.8	14.7	12.1
1984 ..	3,529	1,912	1,617	26.8	14.5	12.3
1985 ..	3,738	2,017	1,721	26.9	14.5	12.4
1986 ..	4,039	2,197	1,842	27.5	15.0	12.6
1987 ..	4,619	2,596	2,023	29.7	16.7	13.0
1988 ..	5,260	3,020	2,240	31.4	18.0	13.4
1989 ..	5,813	3,356	2,457	31.8	18.3	13.4

1/ Based on estimated resident population, July 1.

2/ Based on income estimates for calendar years.

3/ Collections data refer to fiscal years ended June 30 through 1976 and September 30 thereafter.

4/ Collection data refer to fiscal years ended June 30.

Source: Calculated from collections data in preceding table, population estimates in table 2, and income estimates in table 391.

Table 277.-- FEDERAL, STATE, AND COUNTY TAX COLLECTIONS, BY SOURCES: 1979, 1988, AND 1989

[In thousands of dollars. For fiscal year ended September 30 for federal collections and June 30 for others]

Source	1979	1988	1989
Total, all levels	2,612,873	5,752,898	6,446,721
Federal collections	1,455,225	3,310,750	3,731,844
Indiv. income and employment 1/ ..	1,211,243	2,870,314	3,220,556
Corp. income and excess profits ..	199,747	333,528	412,151
Excise	15,265	48,497	51,986
Estate	17,702	36,555	22,184
Gift	1,271	1,601	4,837
Unemployment insurance	9,997	20,255	20,130
State collections	1,127,677	2,033,181	2,283,892
General excise and use	430,850	920,232	1,025,434
Transient accommodations 2/	-	67,290	75,983
Fuel	48,319	85,192	91,131
Liquor	20,434	38,201	38,609
Tobacco	11,856	21,318	24,413
Insurance	18,466	38,009	33,414
Public service companies	33,925	63,587	64,846
Corporate income 3/	32,273	66,017	72,339
Indiv. income, net income 4/	264,557	626,009	767,589
Inheritance and estate	4,141	7,314	6,675
Unemployment compensation	75,458	77,010	53,120
Other sources 5/	187,398	23,002	30,339
County collections	37,292	422,004	448,861
Real property	-	353,880	372,633
Utility franchise	8,023	15,776	15,830
Motor vehicle weight 6/	21,948	39,311	42,523
Other sources	7,321	13,037	17,875

1/ Includes withholding, FICA, individual income, and railroad retirement taxes.

2/ Transient accommodations tax collection effective January 1, 1987.

3/ Includes payments of estimated taxes less refunds.

4/ Includes withheld and estimated taxes less refunds.

5/ Until 1981, real property taxes (included in State "other sources" for 1978) were collected by the State.

6/ Includes State motor vehicle weight tax.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1990, tables 13 and 29.

Table 278.-- ESTIMATED TAX BURDEN FOR A FOUR-PERSON FAMILY ON OAHU: 1970 AND 1988

[In dollars. Based on a gross family income equivalent to four times the per capita personal income estimated for Hawaii. For underlying assumptions, see source]

Subject	1970	1988	Percent increase
Total tax burden	5,559	25,610	361
Federal income	2,130	8,096	280
State income	693	3,693	433
Social Security	1,247	7,758	522
General excise	304	1,207	297
Real property	366	1,006	175
Employment 1/	527	3,301	526
Specific excise 2/	67	161	140
Automobile	225	388	72
Direct	4,342	18,432	325
Indirect	1,217	7,178	490
Gross family income	16,408	62,716	282
After taxes	10,849	37,106	242

1/ Unemployment compensation, temporary disability insurance, and workers' compensation.

2/ Alcohol, tobacco, telephone, and bicycle.

Source: Tax Foundation of Hawaii, The Tax Burden of the Arnie Aloha Family (November 1989).

Table 279.-- ESTIMATED STATE AND LOCAL TAXES PAID BY A FAMILY OF FOUR, BY INCOME LEVEL, FOR HONOLULU: 1988

Income level	Honolulu		51-city median 1/	
	Taxes (dollars)	Percent of income	Taxes (dollars)	Percent of income
$25,000	2,522	10.1	2,031	8.1
$50,000	5,299	10.6	4,001	8.0
$75,000	8,054	10.7	6,574	8.8
$100,000	10,949	10.9	8,936	8.9

1/ Largest city in each state, including D.C.

Source: Data from D.C. Department of Finance and Revenue, cited in Statistical Abstract of the United States: 1990, p. 298.

Table 280.-- PER CAPITA REVENUE, EXPENDITURE, AND DEBT OF STATE AND LOCAL GOVERNMENT: 1987 AND 1988

Subject	Amount (dollars)		Percent of U.S.		Rank	
	1987	1988	1987	1988	1987	1988
General revenue	3,024	3,461	103.6	117.0	11	6
Taxes	1,955	2,259	117.4	127.4	8	5
Debt outstanding	3,235	3,270	109.6	106.5	22	24
General expenditure	2,835	2,974	105.2	103.7	16	14
Capital outlay	512	490	150.3	134.5	5	8

Source: U.S. Bureau of the Census, Government Finances in 1986-87, GF 87, No. 5, pp. 106-110, and Government Finances in 1987-1988, GF-88-5 (January 1990), pp. 105-109.

Table 281.-- STATE REVENUE RECEIPTS: 1988 AND 1989

[In thousands of dollars. Years ended June 30]

Source of revenues	1988: all funds	1989		
		All funds	General funds	Special funds
Total 1/	3,143,873	3,604,416	2,340,453	1,263,963
Tax revenues	2,015,493	2,263,024	2,121,518	141,506
General excise	920,232	1,025,434	1,011,331	14,103
Specific excises 2/	163,859	234,405	164,042	70,363
Individual income	625,547	767,232	767,232	-
Corporate income	66,017	72,339	72,339	-
Transient accommodations	67,278	75,973	75,973	-
Unemployment compensation	77,010	52,649	-	52,649
Other taxes, licenses, permits 3/	95,550	34,992	30,601	4,391
Fines, forfeits, and escheats	14,336	15,630	13,695	1,935
Federal grants-in-aid	438,307	479,852	11,440	468,412
Revenues from other agencies	12,427	12,810	3,717	9,093
Rents, royalties, land income 4/ ..	25,366	28,365	4,460	23,905
Earnings: general departments	231,977	250,872	79,298	171,574
Earnings: public service enterp. .	170,285	269,157	-	269,157
Interest earned	108,321	156,361	93,795	62,566
Miscellaneous	127,361	128,345	12,530	115,815

1/ Excludes transfers and repayments except as shown.

2/ Includes public service companies, tobacco, liquor, insurance, vehicle registration and weight, and fuel taxes.

3/ Includes transient accommodations, franchise, inheritance and estate, and conveyance taxes.

4/ Includes investment and unallocable interest income.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1990, table 12.

Table 282.-- STATE OPERATING EXPENDITURES, BY FUNCTION: 1979, 1988, AND 1989

[In thousands of dollars. For years ended June 30. Data include general, special, and proprietary fund expenditures; unemployment trust fund treated as a special fund. Interfund transfers eliminated to avoid duplication]

Functions	1979	1988	1989
Total	1,483,236	2,980,741	3,267,997
General government: Control	27,609	69,272	79,496
Staff	63,308	157,816	208,306
Public safety: Police and fire .	2,691	2,928	3,036
Other protection	43,200	109,741	116,955
Highways	42,682	78,624	76,911
Natural resources	15,864	36,032	38,327
Health and sanitation	30,956	126,174	120,440
Hospitals and institutions	78,755	104,934	147,452
Public welfare	243,717	380,823	396,944
Education: Higher	173,869	338,609	380,707
Public schools	282,120	518,862	572,334
Libraries and other .	15,508	28,773	33,547
Recreation	8,462	19,222	27,025
Utilities and other enterprises	51,609	194,075	174,257
Debt service 1/	139,266	279,665	248,062
Retirement and pension	62,261	131,079	85,727
Employees' health and hosp. insurance	13,487	442	584
Unemployment compensation	44,053	55,827	49,112
Grants-in-aid to counties	20,650	32,867	42,348
Urban redevelopment and housing	38,669	146,462	263,908
Miscellaneous	13,354	58,878	46,921
Cash capital improvements 2/ ...	71,146	109,636	155,598

1/ Debt service on revenue bonds reimbursable from highway funds included under Highways; from airport and harbor funds under Utilities; from Sand Island receipts, land revolving trust, and Veterans' home loan funds under Miscellaneous.

2/ Special funds accounted for $71,111,203 in 1979, $86,399,131 in 1988, and $111,172,532 in 1989.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1990, table 35.

Table 283.-- COUNTY OPERATING REVENUES, BY SOURCE, AND COUNTY OPERATING EXPENDITURES, BY OBJECT, FOR ALL COUNTIES COMBINED: 1979, 1988, AND 1989

[In thousands of dollars. For years ended June 30]

Subject	1979	1988	1989
OPERATING REVENUES 1/			
Total	405,870	699,842	752,444
Real property taxes	174,334	353,790	372,634
Other taxes	35,060	71,754	78,823
Fees, licenses, permits, and fines	9,813	18,035	21,683
Departmental earnings and charges	33,420	90,972	95,112
State grants	26,534	48,848	58,744
Federal grants	122,310	75,798	79,200
Other sources	4,399	40,645	46,248
OPERATING EXPENDITURES 2/			
Total	387,413	698,946	739,585
General government: Control	6,911	8,856	10,649
Staff	39,840	70,031	81,934
Public safety: Police and fire	77,243	153,885	165,610
Other protection	15,246	26,487	33,299
Highways	20,921	33,664	39,310
Health and sanitation	25,749	60,545	71,269
Public welfare	5,052	7,992	10,588
Public schools	517	577	572
Recreation	26,739	48,766	52,642
Interest	15,215	44,167	48,011
Bond redemption	18,978	21,472	23,184
Pension and retirement	26,852	47,457	26,447
Salary adjustment	8	34	38
Economic and urban development	39,854	22,146	23,144
Mass transit	25,222	47,794	48,909
Miscellaneous	17,730	40,240	45,283
Cash capital improvements	25,336	64,833	58,696

Footnotes and source follow next table.

Table 284.-- COUNTY OPERATING REVENUES, BY SOURCE, AND COUNTY OPERATING EXPENDITURES, BY OBJECT, BY COUNTIES: 1989

[In thousands of dollars. For year ended June 30, 1989]

Subject	City and Co. of Honolulu	County of Maui	County of Hawaii	County of Kauai
OPERATING REVENUES 1/				
Total	549,646	79,224	78,731	44,843
Real property taxes	267,907	38,428	45,394	20,905
Other taxes	58,631	7,743	8,273	4,176
Fees, licenses, permits, and fines	14,337	3,350	2,780	1,216
Departmental earnings and charges	70,171	14,309	4,966	5,666
State grants	25,631	13,450	12,586	7,077
Federal grants	71,869	322	2,866	4,143
Other sources	41,100	1,622	1,866	1,660
OPERATING EXPENDITURES 2/				
Total	550,907	73,543	78,532	36,603
General government: Control	6,223	1,328	1,869	1,229
Staff	57,792	8,332	9,176	6,634
Public safety: Police and fire	114,975	16,505	25,285	8,845
Other protection	23,719	3,366	5,214	1,000
Highways	23,963	7,074	5,173	3,100
Health and sanitation	58,397	6,890	4,282	1,700
Public welfare	-	6,405	3,006	1,177
Public schools	-	181	251	140
Recreation	38,582	5,042	6,362	2,656
Interest	39,001	2,483	4,900	1,627
Bond redemption	17,863	979	2,967	1,375
Pension and retirement	17,644	1,343	6,034	1,426
Salary adjustment	-	-	-	38
Economic and urban development	23,144	-	-	-
Mass transit	48,427	-	482	-
Miscellaneous	34,194	3,945	2,439	4,705
Cash capital improvements	46,983	9,670	1,092	951

1/ Excludes loan, bond, revolving, improvement district, and certain trust funds, and Board of Water Supply revenues.

2/ Excludes certain revolving, bond, loan and enterprise funds, and urban redevelopment land purchases.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1990, tables 24-27 and 36-39.

Table 285.-- NUMBER OF EXEMPTIONS AND ADJUSTED GROSS INCOME REPORTED ON INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEARS 1969 TO 1988

Tax year	Number of returns	Number of exemptions 1/	Adjusted gross income (less deficit)		
			Total ($1,000)	Per return (dollars)	Per exemption 1/ (dollars)
1969	290,251	716,153	2,407,048	8,293	3,361
1970	302,426	763,992	2,802,445	9,267	3,668
1971	308,814	809,612	3,010,051	9,747	3,718
1972	318,023	763,985	3,250,608	10,221	4,255
1973	345,211	832,636	3,749,212	10,861	4,503
1974	346,824	805,533	3,957,023	11,409	4,912
1975	358,510	841,976	4,269,028	11,908	5,070
1976	362,956	815,937	4,625,609	12,744	5,669
1977	380,937	847,098	5,218,740	13,700	6,161
1978	403,217	925,125	5,943,659	14,741	6,425
1979	412,922	880,845	6,493,228	15,725	7,372
1980	424,177	936,056	7,320,740	17,259	7,821
1981	437,977	957,338	7,870,617	17,970	8,221
1982	445,953	1,027,743	8,236,603	18,470	8,014
1983	450,097	1,037,030	8,652,808	19,224	8,344
1984	461,424	1,055,297	9,322,406	20,204	8,834
1985	470,745	1,071,202	9,965,599	21,170	9,303
1986	485,014	1,096,934	10,959,168	22,596	9,991
1987	506,302	1,112,189	12,670,065	25,025	11,392
1988	520,575	1,087,534	14,215,978	27,308	13,072

1/ Exemptions for age or blindness excluded through 1981 and included thereafter.

Source: U.S. Treasury Department, Internal Revenue Service, Statistics of Income. Individual Income Tax Returns (annual); SOI Bulletin, Summer 1985, p. 93, Winter 1985-86, p. 97, Winter 1986-87, p. 83, Winter 1987-88, p. 80, Spring 1989, p. 94, Spring 1990, p. 141, and records.

Table 286.-- ADJUSTED GROSS INCOME AND INCOME TAX, BY SIZE OF ADJUSTED GROSS INCOME, FOR INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEARS 1987 AND 1988

Tax year 1/ and size of adjusted gross income	Number of returns	Adjusted gross income less deficit ($1,000)	Total income tax		
			Number of returns	Amount ($1,000)	Average (dollars)
1987					
All returns	506,302	12,670,065	439,394	1,640,755	3,734
Under $10,000 2/	155,127	575,076	94,292	31,723	336
$10,000 under $15,000 ..	70,617	879,316	66,680	61,961	929
$15,000 under $30,000 ..	136,371	2,926,801	134,564	273,647	2,034
$30,000 under $50,000 ..	85,766	3,316,271	85,519	378,081	4,421
$50,000 and over	58,421	4,972,601	50,339	895,343	17,786
Median income	$17,905	...	...	...	...
1988					
All returns	520,575	14,215,978	447,779	1,925,661	4,300
Under $10,000 2/	150,713	393,553	85,838	[illegible]0,839	359
$10,000 under $15,000 ..	69,067	860,481	63,540	60,789	957
$15,000 under $30,000 ..	142,131	3,052,250	139,999	286,398	2,046
$30,000 under $50,000 ..	90,175	3,494,660	89,973	397,921	4,423
$50,000 and over	68,489	6,415,034	68,429	1,149,714	16,802
Median income	$19,275	...	...	...	...

1/ Filed in following year.

2/ Includes returns with adjusted gross deficit.

Source: U.S. Treasury Department, Internal Revenue Service, Statistics of Income--1987, Individual Master File, and SOI Bulletin, Spring 1990, pp. 141-143.

Table 287.-- CHARACTERISTICS OF INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEAR 1988

Subject	Number of returns	Amount ($1,000)
All returns and adjusted gross income (AGI) ...	520,575	14,215,978
Salaries and wages ...	444,213	10,565,916
Dividends ...	109,100	298,063
Interest ...	384,352	764,545
Sales of capital assets, net gain less loss ...	59,852	924,863
Unemployment compensation in AGI ...	22,967	38,971
Itemized deductions ...	159,377	2,084,818
Tax liability ...	447,779	1,925,661
Earned income credit ...	38,014	18,349

Source: U.S. Treasury Department, Internal Revenue Service, SOI Bulletin, Spring 1990, pp. 141-143.

Table 288.-- INTERNAL REVENUE SERVICE OPERATIONS: 1986 TO 1988

Subject	1986	1987	1988
Internal revenue collections ($1,000) ...	2,337,030	2,809,135	3,310,750
Individual income and employment taxes ...	2,040,878	2,479,536	2,890,569
Total returns filed ...	859,789	889,779	909,109
Individual income tax ...	472,022	484,804	503,855
Returns examined ...	7,326	5,101	4,208
Individual ...	6,545	4,429	3,485
Additional tax and penalties recommended after examination ($1,000) ...	88,471	37,496	28,092
Individual ...	43,577	16,953	16,690
Costs incurred ($1,000) ...	8,418	8,912	10,350

Source: Internal Revenue Service, Annual Report, 1986, 1987, and 1988.

Table 289.-- RESIDENT INDIVIDUAL STATE INCOME TAX RETURNS: TAX YEARS 1970 TO 1988

Year income was received	Number of resident returns	Adjusted gross income 1/ ($1,000)	Net taxable income ($1,000)	Tax liability ($1,000)
1970	304,365	2,645,390	1,743,908	108,446
1971	306,959	2,825,713	1,839,574	115,931
1972	321,669	3,071,919	1,977,779	126,422
1973	338,089	3,391,445	2,170,208	141,113
1974	351,867	3,705,597	2,407,936	160,460
1975	365,185	4,014,828	2,615,002	177,121
1976	372,484	4,279,268	2,832,875	195,542
1977	384,924	4,719,669	3,140,643	220,095
1978	409,218	5,455,155	3,718,082	266,497
1979	431,906	5,639,290	3,871,963	282,093
1980	423,858	6,506,757	4,275,817	321,738
1981	448,320	6,884,575	4,479,808	336,497
1982	422,535	6,912,014	4,469,031	339,108
1983	424,194	7,088,769	4,695,499	360,551
1984	422,245	7,604,199	4,980,484	387,300
1985	427,572	8,060,406	5,284,942	415,544
1986	426,532	8,370,257	5,493,138	437,263
1987	468,363	10,147,149	7,170,035	556,135
1988	483,913	11,504,190	8,387,106	658,879

1/ Exclusive of losses.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns Individuals (annual), and records.

Table 290.-- STATE INCOME TAX RESIDENT RETURNS ON INCOME RECEIVED DURING 1988, BY ADJUSTED GROSS INCOME CLASS

Adjusted gross income class	Number of returns	Adjusted gross income 1/ ($1,000)	Net taxable income ($1,000)	Tax liability ($1,000)
All resident returns ...	483,913	11,504,190	8,387,107	658,878
Taxable resident returns	396,039	11,334,516	8,387,107	658,878
Under $1,000	2,805	2,019	593	16
$1,000, under $5,000	47,844	143,353	68,447	2,197
$5,000, under $10,000	59,457	443,781	271,453	14,008
$10,000, under $20,000	96,362	1,438,611	1,052,878	69,956
$20,000, under $30,000	62,057	1,523,620	1,135,193	83,959
$30,000, under $40,000	41,804	1,453,596	1,064,370	81,785
$40,000, under $50,000	29,548	1,322,854	954,188	75,744
$50,000, under $75,000	37,425	2,250,532	1,641,437	136,566
$75,000, under $100,000	9,788	829,091	625,656	54,388
$100,000 and over	8,949	1,927,059	1,572,892	140,259
Nontaxable resident returns ..	87,874	169,674	...	...
Loss	2,733	(58,975)	...	...
Under $5,000	75,798	74,289	...	...
$5,000, under $10,000	6,388	42,761	...	...
$10,000 and over	2,955	52,624	...	...

1/ Total and subtotals exclude losses.
Source: Hawaii State Department of Taxation, records.

Table 291.-- MEDIAN ADJUSTED GROSS INCOME OF RESIDENT STATE INCOME TAX RETURNS, BY TYPE OF RETURN, 1978 TO 1988, AND BY COUNTIES, 1987 AND 1988

[In dollars]

Year income was received	Taxable and nontaxable returns			Taxable returns only		
	All returns	Joint	Other 1/	All returns	Joint	Other 1/
1978	9,302	20,276	4,538	12,279	22,335	6,274
1979	8,738	20,073	4,757	11,804	22,636	6,875
1980	9,676	21,510	5,294	13,464	24,980	7,639
1981	10,220	23,321	5,794	14,737	26,881	8,455
1982	11,178	23,737	6,080	15,466	27,285	9,636
1983	11,297	25,047	6,432	15,937	29,076	10,009
1984	12,035	25,290	6,858	16,565	28,935	10,540
1985	12,488	25,838	7,087	17,124	29,870	10,710
1986	12,941	26,576	7,768	17,747	31,755	11,557
1987	13,252	29,036	7,709	17,977	34,063	11,131
1988	14,749	31,787	8,910	18,956	36,706	12,452
COUNTIES: 1987						
Honolulu ...	13,649	31,188	8,072	18,632	35,198	11,375
Maui	14,583	30,450	8,183	17,917	33,359	11,165
Hawaii	9,930	22,736	5,384	15,335	27,172	9,761
Kauai	11,283	24,981	6,531	16,659	31,713	9,931
COUNTIES: 1988						
Honolulu ...	15,172	33,391	9,243	19,542	37,825	12,706
Maui	16,176	32,478	10,407	19,968	36,699	12,876
Hawaii	11,006	24,509	6,118	16,292	29,375	10,572
Kauai	13,725	28,085	6,800	17,757	32,188	10,597

1/ Including single, married filing separately, heads of households, and qualifying widows and widowers.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns, Individuals (annual), and records.

Table 292.-- GENERAL EXCISE AND USE TAX BASE AND COLLECTIONS: 1988 AND 1989

[In thousands of dollars. Data are on a cash basis accounting]

Source of revenue	Tax base		Tax collections	
	1988	1989	1988	1989
All sources	31,559,864	35,778,922	965,882	1,096,476
Sources taxed at 4 percent	21,848,266	24,833,681	873,931	993,347
Retailing	10,385,974	11,607,779	415,439	464,311
Services	3,287,715	3,699,003	131,509	147,960
Contracting	2,487,571	3,112,846	99,503	124,514
Theater, amusement, radio	165,729	184,154	6,629	7,366
Interest	230,817	269,093	9,232	10,764
Commissions	528,809	618,462	21,152	24,738
Hotel rentals	1,408,891	1,505,071	56,356	60,203
All other rentals	2,306,655	2,603,669	92,266	104,147
Use (4 percent)	449,518	477,078	17,981	19,083
All others (4 percent)	596,587	756,526	23,863	30,261
Sources taxed at other rates 1/ ..	9,711,598	10,945,241	47,995	54,081
Insurance solicitors	160,936	184,310	241	276
Sugar processing	165,350	38,214	827	191
Pineapple canning	2,622	12,622	13	63
Producing	298,261	326,400	1,491	1,632
Manufacturing	629,303	630,997	3,147	3,155
Wholesaling	5,683,815	6,595,569	28,419	32,978
Services (intermediary)	182,138	189,018	911	945
Use (1/2 percent)..............	2,589,173	2,968,111	12,946	14,841
Unallocated net collections	-	-	43,957	49,048

1/ Insurance solicitors at 0.15 percent; others at 0.5 percent.

Source: Hawaii State Department of Taxation, General Excise and Use Tax Base and General Excise and Use Tax Collections (calendar year summary tables).

Table 293.-- REAL PROPERTY TAX VALUATIONS: ANNUALLY, 1980 TO 1990

[Thousands of dollars. As of January 1. Government parcels assessed at $1, 1983-1987, and at 100 percent thereafter]

Year	Assessment ratio 1/	Assessor's gross valuation			Valuation for tax rate purposes
		Total	Land	Improvement	
1980 ...	60	21,881,304	12,074,217	9,807,087	14,831,641
1981 ...	60	25,371,079	13,775,220	11,595,859	17,933,736
1982 ...	60	29,631,825	15,982,660	13,649,165	21,397,832
1983 ...	100	46,659,440	23,603,352	23,056,088	39,508,235
1984 ...	100	49,085,380	24,900,368	24,185,012	41,672,612
1985 ...	100	51,231,020	25,507,708	25,723,312	43,581,421
1986 ...	100	52,814,463	26,442,872	26,371,591	45,222,885
1987 ...	100	54,655,038	27,396,477	27,258,561	46,629,959
1988 ...	100	67,628,063	36,730,370	30,897,693	50,219,249
1989 ...	100	76,926,745	42,778,927	34,147,818	57,526,564
1990 ...	100	99,942,540	61,554,968	38,387,572	71,080,524

1/ Percent of fair market value.

Source: Hawaii State Department of Taxation, Real Property Tax Valuations and Tax Rates (annual release, through 1980); Honolulu Department of Finance, Real Property Assessment Division, Real Property Tax Valuations & Tax Rates for the Fiscal Year 1981-82, and Real Property Tax Valuations, Tax Rates, & Exemptions (annual, 1982 forward).

Table 294.-- REAL PROPERTY TAX VALUATIONS: 1988 TO 1990

[In thousands of dollars]

Subject	1988	1989	1990
Assessor's gross valuation 1/	67,628,063	76,926,745	99,942,540
Land	36,730,370	42,778,927	61,554,968
Improvement	30,897,693	34,147,818	38,387,572
Exemptions	17,016,434	18,752,245	27,282,840
Assessor's net taxable valuation ..	50,611,629	58,174,500	72,659,700
Half of valuation on appeal	392,380	647,936	1,579,176
Number of appeals	1,626	2,560	4,089
Valuation for tax rate purposes ...	50,219,249	57,526,564	71,080,524
Land	26,908,933	31,670,173	44,192,655
Improvement	23,310,316	25,856,391	26,887,869
Amount to be raised by taxation 1/	364,357	418,324	476,683

1/ For fiscal years beginning July 1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions (annual).

Table 295.-- REAL PROPERTY TAX VALUATIONS, BY COUNTIES: 1990

[In thousands of dollars]

Subject	Honolulu	Maui	Hawaii	Kauai
Assessor's gross valuation	74,997,689	11,723,508	8,074,560	5,146,783
Land	48,235,757	5,910,941	4,276,510	3,131,760
Improvement	26,761,932	5,812,567	3,798,050	2,015,023
Exemptions	22,745,719	1,662,602	1,728,221	1,146,298
Assessor's net taxable valuation	52,251,970	10,060,906	6,346,339	4,000,485
Half of valuation on appeal	1,328,639	96,141	46,750	107,646
Number of appeals	2,543	311	589	646
Valuation for tax rate purposes	50,923,331	9,964,765	6,299,589	3,892,839
Land	33,318,177	5,086,776	3,463,547	2,324,155
Improvement	17,605,154	4,877,989	2,836,042	1,568,684
Amount to be raised by taxation 1/	332,760	59,292	57,217	27,414

1/ For fiscal year beginning July 1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, *Real Property Tax Valuations, Tax Rates, & Exemptions, 1990-1991 Tax Year, State of Hawaii* (July 1990), pp. 2-5.

Table 296.-- REAL PROPERTY TAX EXEMPTIONS, BY TYPE: 1990

Type of exemption	Number	Amount 1/ ($1,000)
All exemptions	193,966	27,374,417
Federal government	394	2,936,336
State government	5,980	7,460,529
County government	3,289	2,162,554
Hawaiian Homes Commission	870	94,590
Hawaii Housing Authority	329	836,981
Homes--fee	138,520	8,368,275
Homes--leasehold	29,047	1,609,748
Totally disabled	5,226	115,803
Churches	1,400	863,677
Hospitals	81	408,943
Low-moderate income housing	368	486,105
Charitable organizations	641	480,864
Public utilities	777	587,328
Schools	146	475,834
All others	6,898	486,850

1/ Includes government parcels at actual value and exemptions on federal leases, if any.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates & Exemptions, 1990-1991 Tax Year, State of Hawaii (July 1990), p. 6.

Table 297.-- REAL PROPERTY TAX VALUATIONS, BY LAND USE CLASSES: 1990

[In thousands of dollars]

Land use class	Gross valuation, Jan. 1, 1990			Amounts to be raised by taxation, fiscal 1990-91
	Total	Land	Improvement	
All classes	99,942,540	61,554,968	38,387,572	476,683
Improved residential ...	43,223,905	27,243,399	15,980,506	148,451
Apartment	14,419,260	6,540,205	7,879,055	63,024
Commercial	13,391,546	8,641,050	4,750,496	88,320
Industrial	9,336,887	7,435,548	1,901,339	47,728
Agricultural	5,049,723	3,529,680	1,520,043	29,950
Conservation	1,456,022	1,244,062	211,960	4,950
Hotel/resort	9,699,785	4,446,383	5,253,402	86,504
Unimproved residential .	3,365,412	2,474,641	890,771	7,756

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, 1990-1991 Tax Year, State of Hawaii (July 1990).

Table 298.-- REAL PROPERTY TAX RATES, BY COUNTIES: FISCAL YEAR 1990-1991

[Dollars per $1,000 net taxable value]

Land use class	Honolulu	Maui	Hawaii	Kauai
Land:				
Improved residential	4.70	4.50	8.50	5.35
Unimproved residential	4.95	4.75	10.00	5.35
Apartment	4.70	4.75	10.00	8.70
Hotel/resort	10.71	8.00	10.00	8.70
Commercial	9.45	7.00	10.00	8.70
Industrial	9.45	7.00	10.00	8.70
Agricultural	9.00	4.75	10.00	8.70
Conservation	9.00	4.75	10.00	8.70
Building:				
Improved residential	4.95	4.50	8.50	4.57
Unimproved residential	4.95	4.75	8.50	4.57
Apartment	4.95	4.75	8.50	8.25
Hotel and resort	10.71	8.00	8.50	8.25
Commercial	9.45	7.00	8.50	8.25
Industrial	9.45	7.00	8.50	8.25
Agricultural	9.00	4.75	8.50	8.25
Conservation	9.00	4.75	8.50	8.25

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, 1990-1991 Tax Year, State of Hawaii (July 1990), p. 8.

Table 299.-- FEDERAL EXPENDITURES IN HAWAII: 1968 TO 1989

[Millions of dollars. For fiscal years ended June 30 through 1976 and September 30 thereafter]

Fiscal year	Amount	Fiscal year	Amount	Fiscal year	Amount
1968	848	1976	2,162	1984	4,232
1969	988	1977	2,066	1985	4,568
1970	964	1978	2,507	1986	4,643
1971	1,075	1979	2,659	1987	4,759
1972	1,173	1980	3,151	1988	4,957
1973	1,435	1981	3,811	1989	5,410
1974	1,644	1982	3,505		
1975	2,060	1983	4,054		

Source: U.S. Office of Economic Opportunity (1968-1975) and U.S. Community Services Administration (1976-1980), Federal Outlays in Hawaii (annual report, 1968 1976) and Geographic Distribution of Federal Funds in Hawaii (annual report, 1977-1980); U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1989 (March 1990), p. 38.

Table 300.-- FEDERAL EXPENDITURES IN HAWAII, BY TYPES: FISCAL YEARS 1984 TO 1989

[Millions of dollars]

Type of expenditure	1984	1985	1986	1987	1988	1989
All categories	4,232	4,568	4,643	4,759	4,957	5,410
Grants to State and local governments	459	436	473	460	477	528
Salaries and wages	1,809	1,942	1,961	2,073	2,078	2,285
Direct payments for individuals	1,321	1,444	1,517	1,617	1,715	1,884
Procurement	577	672	619	525	591	613
Other direct expenditures	66	73	73	84	96	100
Department of Defense	2,324	2,553	2,486	2,503	2,562	2,820
Other federal agencies	1,908	2,015	2,158	2,256	2,395	2,591

Source: U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1989 (March 1990), pp. 37-43, and corresponding data in earlier reports.

Table 301.-- PER CAPITA FEDERAL EXPENDITURES IN HAWAII, BY TYPES: FISCAL YEAR 1989

Category	Amount (dollars)	Percent of U.S.	Rank 1/
All categories	4,866	131.5	6
Grants to State and local governments	475	98.8	27
Salaries and wages	2,055	362.1	2
Direct payments for individuals	1,695	94.2	36
Procurement	551	78.2	22
Other direct expenditures	90	60.8	31
Department of Defense	2,536	282.7	2
All other Federal agencies	2,330	83.1	46

1/ Out of 50 States. Including the District of Columbia, Hawaii ranked seventh for the all-categories total.

Source: U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1989 (March 1990), tables 8 and 10.

Table 302.-- DIRECT FEDERAL EXPENDITURES OR OBLIGATIONS IN HAWAII, BY COUNTIES: FISCAL YEAR 1989

[Thousands of dollars]

County	All agencies	Department of Defense	All other agencies
State total 1/	5,559,835	2,804,768	2,755,067
City and County of Honolulu	4,775,505	2,704,013	2,071,492
Hawaii County	260,930	25,016	235,914
Kauai County	131,159	39,501	91,658
Maui County	188,271	36,238	152,033
State undistributed	203,969	-	203,969

1/ Figures differ somewhat from those in tables 293 and 294, because of treatment of Federal grants to State and local governments. In those tables, figure represented actual expenditures; in this table, Federal grants generally represent obligations and include payments to State and local governments, and grants to nongovernmental recipients (see source, pp. vii and viii).

Source: U.S. Bureau of the Census, Consolidated Federal Funds Report, Fiscal Year 1989, Vol. I: County Areas (March 1990), pp. 14-15.

Table 303.-- PUBLIC BONDED DEBT OF STATE AND COUNTY GOVERNMENTS: 1979 TO 1989

[In millions of dollars. As of December 31]

Year	Total bonded debt 1/	State debt	County debt			
			Honolulu	Maui	Hawaii	Kauai
1979	1,971.9	1,677.6	224.3	16.8	38.3	14.9
1980	2,054.3	1,764.9	207.5	22.4	45.6	13.8
1981	2,217.9	1,883.6	235.5	21.1	46.2	31.4
1982	2,359.5	2,039.3	235.5	19.8	45.8	19.0
1983	2,545.4	2,235.8	219.5	19.0	52.1	19.0
1984	2,715.7	2,391.5	221.0	33.5	50.9	18.8
1985	3,131.5	2,621.2	404.0	30.8	56.7	18.8
1986	3,311.8	2,720.4	456.8	47.2	69.3	18.0
1987	3,298.4	2,700.7	448.7	48.8	67.3	32.9
1988	3,382.3	2,728.8	513.6	43.1	65.1	31.6
1989	3,710.4	2,969.9	559.5	73.6	72.4	35.0

1/ Outstanding state and county bonds, both general obligation and revenue bonds.

Source: Tax Foundation of Hawaii, Government in Hawaii (annual).

Table 304.-- STATE GENERAL OBLIGATION BOND DEBT: 1984 TO 1989

[In dollars. As of June 30]

Year	Debt	Year	Debt
1984	1,641,694,840	1987	1,823,677,080
1985	1,697,635,620	1988	1,847,982,810
1986	1,734,971,350	1989	1,978,039,494

Source: Hawaii State Department of Accounting and General Services, records.

Table 305.-- GOVERNMENT WORKERS, BY LEVEL OF GOVERNMENT, CIVIL SERVICE STATUS, AND MEMBERSHIP IN STATE RETIREMENT SYSTEM: 1940 TO 1989

[For earlier years, see Data Book 1987, table 324]

Year	Government workers (annual average)				State civil service workers 1/	State retirement system members 2/
	All levels	Federal	Terr. or State	County		
1940	22,136	11,139	6,245	4,752	2,616	8,352
1945	78,846	66,248	7,231	5,367	3,772	12,662
1950	33,140	18,891	7,955	6,294	5,280	16,120
1960	49,510	27,010	14,620	7,880	6,790	24,092
1970	73,640	33,380	30,600	9,660	10,166	38,912
1980	89,050	30,000	45,150	13,900	17,327	48,868
1986	93,850	32,100	48,600	13,150	18,411	47,662
1987	96,050	32,800	49,900	13,400	18,956	48,262
1988	99,500	33,800	51,850	13,850	19,431	51,534
1989	101,450	33,850	53,550	14,100	20,016	52,655

1/ December 31 through 1960 and June 30 thereafter. State or Territorial workers in civil service system. Data exclude county employees, also covered by civil service.

2/ June 30 through 1960 and March 31 thereafter. Includes State or Territorial employees, county employees, and inactive members (those no longer employed by the State, Territory, or counties who have remained in the System), but excludes pensioners.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1978), pp. 616-617; The State of Hawaii Data Book 1978, p. 158; Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978, as updated); Hawaii State Department of Personnel Services, Annual Report for 1980-1989; Employees' Retirement System of the State of Hawaii, 58th Annual Report, June 30, 1984, p. 17, and records.

Table 306.-- STATE CIVIL SERVICE: 1987 TO 1989

[Years ended June 30. The State civil service system does not cover elected or appointed officials, public school teachers, university faculty, and other exempt positions]

Subject	1987	1988	1989
Civil service employees, June 30	18,956	19,431	20,016
Department of Education	4,374	4,157	4,518
Department of Health	4,598	4,710	4,890
Department of Human Services 1/	2,912	1,599	1,545
Department of Transportation	1,851	1,927	1,987
University of Hawaii	1,511	1,543	1,547
All others	3,710	5,495	5,529
Separations	2,032	1,686	2,406
Promotions	771	1,677	897
Transfers, demotions, and returns after promotions	872	1,742	997
Classification actions	8,854	10,340	10,463
Applications received	25,434	24,988	27,184
Applicants screened	22,814	20,146	24,782
Applicants placed on eligible list	10,977	6,932	10,578
Vacancies filled by competitive and noncompetitive actions	2,826	2,965	3,094
Grievances	286	239	189

1/ Data before 1988 refer to the Department of Social Services and Housing. Some of the functions and staff of DSSH were transferred to other agencies by the 1987 Legislature.

Source: Hawaii State Department of Personnel Services, Ho'okahi wai o ka like, Annual Report, 1988, pp. 8, 12, 25, and 27.

Table 307.-- STATE SALARY SCHEDULES FOR SELECTED LEVELS: 1988 TO 1990

[In dollars per month. Data refer to lowest and highest rates among six bargaining units and excluded managerial compensation plan employees classified under the salary range schedules]

Salary range	Lowest			Highest		
	Oct. 1988	July 1989	July 1990	Oct. 1988	July 1989	July 1990
SR-4	988	1,133	1,184	1,596	1,628	1,693
SR-11	1,206	1,490	1,557	2,084	2,126	2,211
SR-21	1,825	2,225	2,279	3,152	3,215	3,245
SR-31	2,835	3,423	3,650	5,392	5,500	5,610

Source: Hawaii State Department of Personnel Services, salary schedules and conversion tables.

Table 308.-- SALARIES OF SELECTED GOVERNMENT OFFICIALS: 1976, 1988, 1989, AND 1990

[Annual rates, in dollars, as of January 1]

Government official	1976	1988	1989	1990
Governor	50,000	80,000	90,699	94,780
Lieutenant Governor	45,000	76,000	86,164	90,041
Mayor, Honolulu	44,903	78,333	84,725	84,725
Mayor, Hawaii	43,644	63,792	63,792	63,792
Mayor, Maui	36,070	75,000	75,000	80,000
Mayor, Kauai	34,000	52,416	58,500	58,500
Chief Justice, Supreme Court	47,500	80,000	80,000	80,000
Associate Justice, Supreme Court ...	45,000	78,500	78,500	78,500
President, University of Hawaii	45,000	95,000	95,000	95,000

Source: Hawaii Revised Statutes; SLH 1989, Act 329; Salary Commission of the City and County of Honolulu, Final Report and Salary Schedule; Hawaii, Maui, and Kauai County ordinances; DBED telephone survey; newspaper articles.

Section 10

NATIONAL DEFENSE

This section presents statistics relating to the armed forces and their dependents, national guard strength, civilian employment in national defense, veterans, land controlled by the Department of Defense, military housing, and expenditures by the armed forces. Further information appears in sections 1, 2, 6, 12, 13, 14, and 23.

There were approximately 54,000 officers and enlisted men (including 3,200 aboard ships homeported in Hawaii) and 61,000 military dependents in the Islands as of April 1, 1990. This number has been relatively stable in recent years, but at the height of World War II more than 400,000 uniformed personnel were present. The Army accounts for 37 percent of the current total. More than 10,000 Hawaii residents were in the armed forces worldwide in 1990. The importance of national defense in Hawaii can be further measured by total expenditures ($2 billion), military prime contract awards ($579 million), civilian employment (20,000), veterans in civil life (100,000), military personnel receiving retired pay (11,200, receiving $14 million monthly), military-connected pupils in public schools (20,100), military housing (19,400 units), and land owned or controlled by the armed forces (over 265,000 acres). Defense expenditures are second only to tourism as a source of income to Hawaii.

The Department of Business, Economic Development & Tourism has compiled periodic reports on military personnel and dependents since 1959. Other published sources include reports of the U.S. Department of Defense, U.S. Bureau of the Census, Administrator of Veterans Affairs, and the Hawaii State Department of Labor and Industrial Relations, Department of Defense, and Department of Education. Definitions used by these sources frequently differ to some degree, and care is accordingly necessary in comparing data issued by two or more agencies. In mid-1988, for example, the number of armed forces in Hawaii was reported as 45,843 by DOD, 56,815 by the Bureau of the Census, and 64,053 by the local commanding officers reporting to DBED. Historical Statistics of Hawaii, Section 26, includes series on the armed forces dating back to 1795. Section 11 of the Statistical Abstract of the United States: 1990 presents data on national defense and veterans affairs for other states and the entire nation.

Table 309.-- HAWAII RESIDENTS ON ACTIVE DUTY IN THE ARMED FORCES WORLDWIDE: 1970 TO 1990

[As of June 30. Based on home of record]

Year	Number	Year	Number	Year	Number
1970	15,331	1985	10,827	1988	10,548
1975	10,640	1986	10,882	1989 1/ ..	10,501
1980	11,851	1987	10,896	1990	10,052

1/ U.S. military personnel stationed abroad as of December 31, 1989 included 3,782 whose home of record was Hawaii and 5,049 whose last U.S. duty station was Hawaii.

Source: U.S. Department of Defense, Defense Manpower Data Center, records; U.S. Bureau of the Census, "Press Clippings," CB90-28, July 23, 1990.

Table 310.-- DEPARTMENT OF DEFENSE PERSONNEL AND DEPENDENTS: 1984 TO 1989

[As of September 30]

Year	Active-duty shorebased military personnel 1/	Dependents of active-duty military personnel 2/	Direct-hire civilian personnel 3/
1984	47,648	54,190	20,539
1985	46,875	55,552	20,762
1986	46,122	53,428	20,536
1987	47,262	52,438	20,243
1988	45,843	54,820	20,133
1989	43,792	54,724	20,246

1/ Excludes those performing civilian functions, Navy personnel afloat unless temporarily shorebased, and all Coast Guard personnel.

2/ Includes dependents of Hawaii residents stationed out of the State, if those dependents remained in Hawaii.

3/ Military functions only.

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information, Operations and Reports, Department of Defense Selected Manpower Statistics (annual).

Table 311.-- MILITARY PERSONNEL, DEPENDENTS, AND FAMILIES: 1970 TO 1990

[Includes Navy, Marine Corps, and Coast Guard personnel afloat on a homeported basis. Data differ somewhat from similar series compiled by the Bureau of the Census and Department of Defense, reported elsewhere in this volume]

Date		Personnel and dependents	Military personnel 1/			Dependents in Hawaii	Military families
			Total	Ashore	Aboard ship		
1970:	April 1 ..	117,943	56,085	41,362	14,723	61,858	20,558
	July 1 ...	111,549	53,768	39,822	13,946	57,781	20,568
1971:	July 1 ...	112,943	50,762	35,824	14,938	62,181	23,184
1972:	July 1 ...	118,760	52,538	37,124	15,414	66,222	23,688
1973:	July 1 ...	128,082	57,783	43,064	14,719	70,299	25,264
1974:	July 1 ...	126,882	58,558	45,369	13,189	68,324	29,082
1975:	July 1 ...	121,911	58,205	45,589	12,616	63,706	26,122
1976:	July 1 ...	126,694	59,737	46,453	13,284	66,957	26,395
1977:	July 1 ...	123,471	58,466	45,811	12,655	65,005	25,927
1978:	July 1 ...	119,200	58,106	46,001	12,105	61,094	25,400
1979:	July 1 ...	122,386	57,868	44,915	12,953	64,518	27,835
1980:	April 1 ..	125,042	61,019	48,813	12,206	64,023	26,129
1981:	July 1 ...	125,865	61,521	46,255	15,266	64,344	25,893
1982:	July 1 ...	127,816	61,107	54,184	6,923	66,709	26,009
1983:	July 1 ...	125,273	59,021	53,755	5,266	66,252	26,791
1984:	July 1 ...	127,887	60,804	56,321	4,483	67,083	31,415
1985:	July 1 ...	122,286	58,005	53,848	4,157	64,281	29,997
1986:	July 1 ...	124,794	58,584	53,616	4,968	66,210	29,481
1987:	July 1 ...	125,127	60,277	56,322	3,955	64,850	32,038
1988:	July 1 ...	133,958	64,053	60,621	3,432	69,905	34,535
1989:	July 1 ...	116,644	56,370	53,263	3,107	60,274	31,652
1990:	April 1 ..	113,833	53,898	50,681	3,217	59,935	30,934

1/ Beginning in 1982, ship crews living ashore are included with the ashore total.

Source: Hawaii State Department of Business, Economic Development & Tourism, annual survey of local commanding officers.

Table 312.-- MILITARY PERSONNEL, DEPENDENTS, AND FAMILIES, BY SERVICE AND ISLAND: APRIL 1, 1990

[See headnote to preceding table]

		Military personnel					
			Living ashore				
Island and service	Personnel and dependents	Ashore and afloat	In hsg. units	In barracks	Living aboard ship	Dependents in Hawaii	Military families
State total	113,833	53,898	32,044	18,637	3,217	59,935	30,934
By island:							
Oahu	113,190	53,575	31,811	18,554	3,210	59,615	30,730
Hawaii	257	130	96	28	6	127	90
Maui	54	25	24	-	1	29	14
Kauai	308	147	110	37	-	161	99
Kure Atoll	24	21	3	18	-	3	1
By service:							
Air Force	13,945	5,797	4,477	1,320	-	8,148	3,402
Army	42,409	18,693	11,114	7,579	-	23,716	9,357
Coast Guard ...	2,064	965	715	88	162	1,099	535
Marine Corps ..	16,907	9,879	4,513	5,366	-	7,028	4,858
Navy	38,508	18,564	11,225	4,284	3,055	19,944	12,782

Source: Hawaii State Department of Business, Economic Development & Tourism, annual survey of local commanding officers.

Table 313.-- NATIONAL GUARD STRENGTH: 1985 TO 1990

[Actual strength as of late June]

Service	1985	1986	1987	1988	1989	1990
Total	6,096	5,882	5,814	5,838	5,769	5,711
Air National Guard ...	2,227	2,197	2,190	2,187	2,159	2,124
Army National Guard ..	3,869	3,685	3,624	3,651	3,610	3,587

Source: Hawaii State Department of Defense, Annual Report for 1985 and 1986, and records.

Table 314.-- DEPARTMENT OF DEFENSE PERSONNEL, MILITARY AND CIVILIAN, BY SERVICE: SEPTEMBER 30, 1989

Category	All services	Army	Navy	Air Force	Other DoD
Total	64,038	24,130	31,737	8,050	121
Military personnel 1/	43,792	18,788	19,332	5,672	-
Civilian personnel 2/	20,246	5,342	12,405	2,378	121

Footnotes and source follow next table.

Table 315.-- DEPARTMENT OF DEFENSE PERSONNEL, MILITARY AND CIVILIAN, BY LOCATION: SEPTEMBER 30, 1989

Installation or geographic area	Total DoD	Military personnel 1/	Civilian personnel 2/
State total	64,038	43,792	20,246
Aiea	723	425	298
Barbers Point NAS	1,700	1,338	362
Camp H. M. Smith	1,069	1,069	-
Ford Island	393	357	36
Fort Shafter	2,000	-	2,000
Hickam AFB	7,878	5,806	2,072
Honolulu	2,235	1,831	404
Kaneohe	8,719	8,002	717
Kapalama	263	30	233
Kauai	263	138	125
Kunia	1,476	1,422	54
Lualualei	481	213	268
Pearl Harbor	18,022	7,541	10,481
Schofield Barracks	14,974	13,871	1,103
Tripler Army Medical Center	1,049	-	1,049
Wahiawa	835	653	182
Wheeler AFB	1,427	926	501
Other	531	170	361

1/ Active duty. Navy figure includes Marine Corps and excludes personnel afloat and temporary shore-based.

2/ Direct hire. Army data include civil function personnel.

Source: U.S. Office of the Secretary of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, Department of Defense Distribution of Personnel by State and by Selected Locations, September 30, 1989, pp. 6 and 28.

Table 316.-- CIVILIAN EMPLOYMENT IN THE AIR FORCE, ARMY, AND NAVY: ANNUAL AVERAGES, 1984 TO 1989

Service	1984	1985	1986	1987	1988	1989
Total	20,600	20,750	20,400	20,150	20,200	20,150
Air Force	2,650	2,650	2,650	2,550	2,450	2,350
Army	5,000	5,400	5,600	5,600	5,500	5,550
Navy	12,950	12,700	12,150	11,950	12,250	12,250

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1990.

Table 317.-- MILITARY PRIME CONTRACT AWARDS, BY PROGRAM: 1987 TO 1989

[In thousands of dollars. Fiscal years ended September 30. Net value of Department of Defense prime contracts over $25,000]

Procurement program	1987	1988	1989
Total	461,449	540,991	578,733
Ships	14,352	14,459	25,529
Electronics and communication equipment ...	23,256	34,798	32,645
Petroleum	7,043	72,585	38,240
Construction	240,764	250,616	262,044
Services	150,039	139,167	191,413
All other procurement programs	25,995	29,366	28,862

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, Prime Contract Awards by Region and State, Fiscal Years 1989, 1988, and 1987, p. 29.

Table 318.-- DEFENSE EXPENDITURES: 1979 TO 1989

[In thousands of dollars. Does not include military retired pay, Hawaii National Guard expenditures, or U.S. Army Corps of Engineers contracts]

Year	All categories	Military payroll	Civilian payroll	Supplies, equipment, services
1979	1,221,784	497,840	372,596	351,348
1980	1,317,402	533,691	418,759	364,952
1981	1,449,328	612,761	450,684	385,883
1982	1,693,410	716,841	508,569	468,000
1983	1,848,175	793,782	558,220	496,175
1984	1,867,189	828,787	582,531	455,872
1985 1/	1,965,430	839,851	611,437	514,138
1986 1/	1,784,868	822,954	601,476	360,437
1987 1/ 2/	1,856,970	861,174	576,891	418,904
1988	1,892,363	890,698	602,546	399,119
1989	2,038,204	970,773	635,237	432,193
SERVICE: 1988				
Air Force	224,584	106,267	35,700	82,617
Army	857,182	435,598	131,001	290,584
Coast Guard	30,325	24,617	3,305	2,403
Navy and Marine Corps 1/	780,271	324,216	432,540	23,515
SERVICE: 1989				
Air Force	223,159	106,187	36,886	80,085
Army	924,006	461,240	138,494	324,273
Coast Guard 2/ .	30,855	26,045	3,287	1,523
Navy and Marine Corps 1/	860,184	377,301	456,571	26,312

1/ Excludes Navy contract purchases from vendors in the State of Hawaii.

2/ Revised.

Source: Quarterly reports submitted to DBED by armed forces.

Table 319.-- ACREAGE OWNED OR CONTROLLED BY THE U.S. DEPARTMENT OF DEFENSE, BY BRANCH OF SERVICE AND BY ISLANDS: APRIL 1987

Branch of service and island	Total acreage	Owned in fee	Ceded land 1/	Other land 2/
All branches	265,402	26,406	146,187	92,809
Branch of service:				
Air Force	6,081	2,496	2,827	757
Army	165,807	4,058	101,688	60,061
Navy and Marine Corps	93,514	19,851	41,672	31,991
Island:				
Hawaii	108,928	4	84,819	24,105
Maui	8	5	-	3
Kahoolawe	28,777	-	28,777	-
Lanai	-	-	-	-
Molokai	6,319	-	12	6,307
Oahu	93,888	26,397	30,546	36,945
Kauai	27,371	-	1,925	25,446
Niihau	3	-	-	3
Kaula	108	-	108	-
Northwestern Hawaiian Islands, exc. Midway ...	-	-	-	-

1/ Includes 4,962 acres of submerged Navy land in Pearl Harbor.

2/ Held under lease, license, or permit. Includes 31,283 acres of Navy land used for intermittent training with no permanent occupancy and subject to restrictions.

Source: Hawaii State Department of Business and Economic Development, Land Ownership in Hawaii 1987 (Statistical Report 208, September 1988), pp. 7-10.

Table 320.-- HOUSING UNITS OWNED OR OPERATED BY THE ARMED FORCES, BY COUNTIES: APRIL 1, 1989 AND 1990

Year	State total	Honolulu	Hawaii	Kauai	Maui
1989	19,368	19,290	12	60	6
1990	19,378	19,295	15	62	6

Source: Hawaii State Department of Business, Economic Development & Tourism, Housing Unit Estimates for Hawaii (annual).

Table 321.-- VETERANS IN CIVIL LIFE: 1980 AND 1990

Period of service	March 31, 1980	March 31, 1990
Total veterans 1/	94,000	100,000
Wartime veterans 1/	78,000	78,000
Vietnam era	33,000	36,000
Korean conflict	20,000	20,000
World War II	30,000	31,000
World War I	1,000	(Z)
Peacetime veterans	15,000	22,000
Post-Vietnam era only 2/	3,000	10,000
Between Korea and Vietnam only	13,000	10,000
Other peacetime veterans 3/	...	1,000

Z Under 500.

1/ Veterans who served in more than one conflict are counted only once in the totals and subtotals.

2/ Service only after May 7, 1975.

3/ Includes those who served only between World War I and World War II, and those who served only between World War II and the Korean conflict.

Source: Veterans Administration, Veteran Population (annual report).

Table 322.-- VETERANS WHO SERVED IN HAWAII, MIDWAY, OR OTHER ISLANDS IN THE NORTH PACIFIC, BY PERIOD OF SERVICE: 1987

[Response to question, "In which of these places did you serve, sail in, or fly missions over while on active duty in the United States Armed Forces? If on board ship in surrounding waters, mark the nearest geographical area"]

Period of service	Number (millions)	Percent of living veterans
All veterans	4.31	16.5
Wartime veterans 1/	3.92	18.0
World War II	2.10	21.1
Korea	1.12	21.0
Vietnam	1.56	19.1
Peacetime veterans	0.40	9.1

1/ Unduplicated total (some veterans served in more than one period).

Source: U.S. Department of Veteran Affairs, 1987 Survey of Veterans (July 1989), p. 16.

Table 323.-- MILITARY PERSONNEL RECEIVING RETIRED PAY FROM THE DEPARTMENT OF DEFENSE: SEPTEMBER 30, 1989

Service	Number of personnel		Monthly payment 2/ ($1,000)	Payment per person paid 2/ (dollars)
	Retired 1/	Paid by DOD		
Dept. of Defense	12,332	11,226	14,244	1,269
Army	5,041	4,489	5,235	1,166
Navy	3,411	3,133	4,048	1,292
Marine Corps	833	748	1,092	1,460
Air Force	3,047	2,856	3,870	1,355

1/ Includes retired personnel not receiving retired pay from the Department of Defense.

2/ Before deductions for withholding taxes and allotments, but after deductions for survivor benefits, dual compensation, etc.

Source: U.S. Department of Defense, Office of the Actuary, FY 1989 DOD Statistical Report on the Military Retirement System (1990), p. 20.

Section 11

SOCIAL INSURANCE AND HUMAN SERVICES

This section presents data related to governmental expenditures on social welfare; programs for old-age, survivors, disability and health insurance; public employee retirement; unemployment insurance; aid to the needy; and child and other welfare services. Also included here are selected statistics on United Way campaigns, foundations, and the quality of life. Related data are cited in Sections 9 and 13.

Total social welfare costs reached $376 million in fiscal 1989, compared with $245 million a decade earlier. About 55 percent of the 1989 total came from State funds and the remainder from the Federal government. The monthly average number of persons served by major welfare programs in 1989 was 49,000, or 4.4 percent of the resident population of the State. Fifty-seven percent of all public assistance payments and 43 percent of all recipient cases were accounted for by aid to families with dependent children. The average monthly payment per case for public assistance was $473, or 41 percent more than in 1979. Participation in the food stamp program included 32,000 households and 80,000 persons. Among workers receiving unemployment compensation in 1989, weekly benefits averaged $170. About 142,000 Hawaii residents were receiving Social Security benefits in December 1988, and about 122,000 were enrolled for Medicare the following year. There were also 20,000 State and county government pensioners in 1989, with annual benefits of $218 million. Child adoptions in 1989 numbered 830. Ninety-five foundations reported assets of $230 million when most recently surveyed. The United Way reported revenues of $14.3 million and agency allocations of $11.3 million in 1988. A recent comparative study of the "quality of life" in 300 American metropolitan areas ranked Honolulu 27th.

Major data sources include reports and records of the U.S. Department of Health and Human Services, the Hawaii State Department of Human Services (formerly Social Services and Housing), the Hawaii State Department of Labor and Industrial Relations, the Hawaii State Employees' Retirement System, and the United Way. Historical Statistics of Hawaii, Section 8, contains data for earlier years. Section 12 of the Statistical Abstract of the United States: 1990 presents comparable Mainland data.

Table 324.-- PERSONS SERVED AND AVERAGE PAYMENTS, FOR PROGRAMS ADMINISTERED BY THE HAWAII STATE DEPARTMENT OF HUMAN SERVICES: 1979 TO 1989, MONTHLY AVERAGES

[Years ended June 30]

Year	Major programs 1/		Service cases	Medical payments 2/		Average money payments 3/ (dollars)	
	Cases	Individuals		Cases	Individuals	Per case	Per individual
1979	27,399	72,928	16,993	13,796	14,890	334.90	150.99
1980	27,219	71,693	16,312	12,932	13,598	337.59	128.17
1981	27,604	72,480	15,281	11,763	12,104	342.67	130.68
1982	26,130	68,835	8,124	11,629	12,228	355.42	135.05
1983	24,157	64,305	6,443	12,858	13,186	371.00	139.56
1984	23,378	62,430	6,586	12,642	12,939	369.92	138.72
1985	22,212	59,561	6,832	12,286	12,519	368.17	137.50
1986	21,119	56,140	7,186	12,481	12,710	368.25	138.67
1987	19,531	50,954	7,402	13,650	13,858	367.00	140.86
1988	18,394	48,108	7,217	12,197	13,731	414.00	158.00
1989	18,851	49,389	6,108	(NA)	16,829	473.00	181.00
COUNTIES: 1989							
Hawaii ..	4,119	10,946	970	(NA)	2,332	476.00	179.00
Maui	1,190	3,221	540	(NA)	1,163	474.00	176.00
Honolulu	12,918	33,602	3,953	(NA)	12,446	472.00	182.00
Kauai ...	624	1,620	481	(NA)	888	464.00	179.00

1/ Old age assistance, aid to disabled, aid to families with dependent children, AFDC unemployed parents, AFDC foster care, child welfare foster care, and general assistance.

2/ Ineligible for money assistance, receiving medical payment only.

3/ Gross obligation basis.

Source: Hawaii State Department of Human Services, records.

Table 325.-- PERCENT OF RESIDENT POPULATION SERVED BY MAJOR PROGRAMS ADMINISTERED BY THE HAWAII STATE DEPARTMENT OF HUMAN SERVICES, BY COUNTIES: 1988 AND 1989

[Based on fiscal year program data and July population estimates]

Year	State	Hawaii	Maui	Honolulu	Kauai
1988	4.4	9.0	3.5	3.9	3.4
1989	4.4	9.0	3.3	4.0	3.2

Source: Hawaii State Department of Human Services, records; present volume, table 5.

Table 326.-- SOCIAL WELFARE COSTS: 1979 TO 1989

[Thousands of dollars. Years ended June 30]

Year	Total cost	By source of funds		By expenditure category			
		Federal	State	Administration	Medical payments 1/	Money payments	Social service costs
1979	244,898	101,411	143,487	15,250	104,694	113,854	11,100
1980	255,280	109,734	145,547	18,999	112,024	112,793	11,464
1981	286,709	131,652	155,057	19,595	135,541	118,346	13,227
1982	289,391	121,911	167,480	22,271	143,068	114,811	9,241
1983	303,782	133,498	170,284	26,616	157,996	111,185	7,985
1984	335,986	148,902	187,084	35,482	185,730	107,508	7,266
1985	294,406	127,052	167,354	33,604	145,559	103,611	11,632
1986	328,804	147,865	180,939	41,637	175,887	98,738	12,541
1987	314,025	141,185	172,840	37,899	172,966	91,909	11,251
1988	341,573	150,412	191,161	35,445	196,270	98,294	11,564
1989	375,992	169,142	206,850	39,315	207,059	114,620	14,998

1/ These amounts are for benefits provided to both the Medicaid only recipients and financial assistance recipients under the major programs.

Source: Hawaii State Department of Human Services, records.

Table 327.-- PUBLIC ASSISTANCE PAYMENTS AND RECIPIENTS: 1988 AND 1989

[Years ended June 30]

Program	Total payments ($1,000)		Recipient cases (monthly average)		Average monthly payment (dollars)	
	1988	1989	1988	1989	1988	1989
All programs	131,622	151,407	35,585	32,107	308	392
Old age assistance 1/ .	13,343	14,580	5,123	5,279	217	230
Aid to the blind 1/ ...	581	600	175	176	276	283
Aid to disabled 1/	24,262	27,035	7,008	7,287	288	308
Aid to families with dependent children 2/	72,902	86,060	13,396	13,676	453	524
Child welfare foster care	2,442	2,598	837	881	243	243
General assistance	18,133	20,534	1,513	4,808	316	355

1/ Assisted through the Federal Social Security Administration, with State supplements (Supplementary Security Payments) included.

2/ Includes AFDC unemployed parent and AFDC foster care.

Source: Hawaii State Department of Human Services, records.

Table 328.-- PARTICIPATION IN FOOD STAMP PROGRAM: 1988 AND 1989

[Years ended June 30]

Subject	1988	1989
Households, total participating 1/	31,387	31,809
Public assistance recipients	15,480	16,095
Other participants 2/	15,907	15,714
Persons, total participating 1/	80,823	80,285
Public assistance recipients	44,810	48,190
Other participants 2/	36,013	32,095
Value of food stamps given to recipients ($1,000)	79,945	74,533

1/ Monthly averages.

2/ Not receiving public assistance (food stamps only).

Source: Hawaii State Department of Human Services, records.

Table 329.-- SOCIAL SECURITY POPULATION AGE 65 AND OVER, BY SEX, AGE, AND COUNTY: 1987 AND 1988

[Persons entitled to retirement and survivor insurance, including persons in non-payment status]

Subject	Dec. 1987	June 1988
Total	102,032	104,123
Sex:		
Male	49,918	50,675
Female	52,114	53,448
Age:		
65 to 69 years	36,750	37,172
70 to 74 years	27,424	28,069
75 to 79 years	18,519	18,947
80 to 84 years	10,913	11,209
85 to 89 years	5,578	5,764
90 to 94 years	2,173	2,267
95 years and over	675	695
County:		
Hawaii	13,034	13,318
Honolulu	73,849	75,362
Kalawao	78	79
Kauai	5,688	5,784
Maui	9,383	9,580

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 330.-- RETIREMENT, SURVIVORS AND DISABILITY INSURANCE (OASDI) BENEFITS IN CURRENT-PAYMENT STATUS, BY TYPE OF BENEFIT AND COUNTY: DECEMBER 1988

Type of benefit and county	Number of OASDI benefits	Amount of monthly benefits ($1,000)
Total	141,730	67,493
TYPE OF BENEFIT		
Retirement program:		
Retired workers	95,732	50,689
Wives or husbands	11,014	2,784
Children	4,287	882
Survivor program:		
Widows, widowers, or parents	14,007	6,528
Children	6,418	2,322
Disability program:		
Disabled workers	7,378	3,883
Wives or husbands	646	82
Children	2,248	323
Age 65 and over:		
Men	48,937	28,913
Women	53,593	23,717
COUNTY		
Hawaii	19,190	9,107
Honolulu	100,455	47,849
Kalawao	105	48
Kauai	8,060	3,785
Maui	13,705	6,595
Unknown	220	109

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 331.-- SOCIAL SECURITY BENEFICIARIES AND PAYMENTS: 1983 TO 1988

Year	Number of beneficiaries, December	Monthly amounts, December ($1,000)	Annual payments (million dollars)
1983	121,061	46,523	536
1984	125,012	50,529	578
1985	129,475	54,612	626
1986	133,520	57,629	667
1987	138,472	62,847	715
1988	141,730	67,493	770

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 332.-- MEDICARE ENROLLMENT, 1988 AND 1989, AND BENEFIT PAYMENTS, 1987 AND 1988

Coverage	All persons enrolled, July 1		Persons 65 and over enrolled, July 1		Estimated benefit payments (mil. dol.)	
	1988	1989	1988	1989	1987	1988
Hospital and/or medical insurance	116,961	122,456	109,087	113,684	230	248
Hospital insurance	113,272	119,353	105,398	110,581	137	145
Supplementary medical insurance	111,511	115,960	104,276	108,043	94	103
Hospital and medical insurance (both)	107,822	112,857	100,587	104,940	-	-

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Bureau of Data Management and Strategy, records.

Table 333.-- HAWAII STATE EMPLOYEES' RETIREMENT SYSTEM: 1982 TO 1989

Year	Membership, 1/ March 31	Pensioners, March 31	Assets, 2/ June 30 ($1,000)	Total benefits paid 3/ ($1,000)	Average monthly pension 3/ (dollars)	Administration expenses 3/ (dollars)
1982 ..	49,806	13,787	1,658,887	117,358	437	1,309,696
1983 ..	51,578	14,755	1,935,832	132,239	466	1,393,811
1984 ..	51,602	15,548	2,235,686	142,263	491	1,250,890
1985 4/	51,767	16,438	2,326,594	385,756	521	2,292,754
1986 ..	47,662	17,326	2,713,753	175,698	552	1,519,706
1987 ..	48,262	18,635	3,142,146	206,346	596	1,985,071
1988 ..	51,534	19,108	3,419,753	189,131	710	1,954,151
1989 ..	52,655	19,840	3,681,938	217,878	748	1,871,595

1/ State and county employees. Includes former employees who have not withdrawn their contributions but excludes all pensioners. Decline after 1985 primarily reflects corrections in ERS records.

2/ Book value.

3/ Year ended June 30. Data on total benefits paid exclude the employers' share of social security contributions.

4/ Benefits paid total includes refunds to members electing noncontributory retirement plan. Administration expenses total reflects Social Security sick leave recovery claims.

Source: Employees' Retirement System of the State of Hawaii, records.

Table 334.-- CHILD ADOPTIONS: 1984 TO 1989

Type of adoption	1984	1985	1986	1987	1988	1989
Total	548	550	544	581	611	830
By relatives	362	382	339	414	409	577
By nonrelatives	186	168	205	167	202	253
Placed by social agencies ...	145	121	160	134	167	207

Source: Hawaii State Department of Human Services, tabulations from SRS-NCSS-280 Adoption Card.

Table 335.-- UNEMPLOYMENT INSURANCE: 1979 TO 1989

Calendar year	Covered employment	Insured unemployment		Average weekly total wages (dollars)	Gross benefits ($1,000)	Average weekly benefits (dollars)	Average benefit duration (weeks)
		Weekly average	Percent coverage				
1979 ...	400,311	10,381	42	238.91	39,864	93.07	13.5
1980 ...	413,095	11,291	56	259.63	49,222	102.91	13,7
1981 ...	417,018	12,224	51	276.79	66,194	113.59	14.2
1982 ...	409,511	13,657	44	295.25	77,788	124.34	14.8
1983 ...	413,289	13,452	45	310.31	70,392	123.22	15.8
1984 ...	422,950	11,567	43	321.58	70,914	135.72	14.8
1985 ...	434,637	10,091	37	332.90	62,123	134.03	14.6
1986 ...	447,667	8,901	37	347.06	56,391	140.16	14.3
1987 ...	470,179	7,329	37	364.79	49,900	149.50	13.4
1988 ...	485,707	6,708	42	392.73	50,659	162.51	13.5
1989 ...	(NA)	5,239	40	(NA)	40,833	170.03	12.0

NA Not available.

Source: Hawaii State Department of Labor and Industrial Relations, 1990 State of Hawaii Unemployment Insurance Fact Book, 1970 to the Present, Hawaii (June 1990), pp. 6, 8, 11, 22, and 23, and records.

Table 336.-- CHILD DAY CARE SERVICES WITH PAYROLL, BY FEDERAL INCOME TAX STATUS AND BROAD GEOGRAPHIC AREA: 1987

[Child day care services without payroll subject to Federal income tax, not included in this table, numbered 614 establishments with receipts of $2,812,000]

Geographic area	Number of establishments		Receipts or revenue ($1,000)		Paid employees, March 12	
	Subject to tax	Tax exempt	Subject to tax	Tax exempt	Subject to tax	Tax exempt
State total ..	32	89	3,049	15,748	225	999
Oahu	22	69	2,379	14,470	183	902
Neighbor Islands ..	10	20	670	1,278	42	97

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a, 1b, 8a, and 8b, and 1987 Census of Service Industries, Nonemployer Statistics Series, West, SC87-N-4 (March 1990), table 2.

Table 337.-- FOUNDATIONS: 1984 TO 1990

[For definition and coverage, see Data Book 1984, table 306, headnote]

Subject	1984	1989	1990
Non-restricted foundations (open to grant-seekers):			
Number	68	93	95
Assets (million dollars)	164.6	251.0	230.2
Grants made (million dollars)	9.8	10.3	12.0
Restricted foundations (number)	62	10	6

Source: The Foundation Center, Foundations Directory (annual) and National Foundations (annual), special tabulations.

Table 338.-- UNITED WAY REVENUES AND OUTLAYS, 1978 TO 1988, AND BY ISLANDS, 1988

[$1,000]

Year and island	Total revenues	Contrib-utions	Total outlays	Agency allocation
1978 1/	8,419	8,143	8,219	7,521
1979 1/	8,993	8,852	8,921	8,199
1980 1/	9,708	9,371	9,399	8,555
1981 1/	10,338	10,271	10,394	9,308
1982 1/	10,781	10,593	10,548	9,743
1983	11,168	10,975	11,280	10,116
1984	11,651	11,271	11,294	10,059
1985	11,869	11,517	11,603	10,307
1986 2/	12,807	12,258	12,454	10,920
1987	13,313	12,473	13,319	11,319
1988	14,302	13,474	13,782	11,293
ISLAND: 1988				
Aloha United Way (Oahu)	12,041	11,296	11,607	9,487
Hawaii Island United Way	900	853	825	667
United Way of Kauai	413	405	363	308
Maui United Way 3/	898	870	948	792
Friendly Isle United Way (Molokai)	50	50	39	39

1/ Data exclude Friendly Isle United Way.
2/ Data for Maui United Way cover 18-month period ending June 30, 1987.
3/ Year ended June 30, 1988.

Source: Aloha United Way, Annual Reports; Hawaii Island United Way, Inc., and Maui United Way, Financial Statements and records; United Way of Kauai and Friendly Isle United Fund, records.

Table 339.-- QUALITY OF LIFE GENERAL INDEX RANKINGS, FOR THE HONOLULU METROPOLITAN STATISTICAL AREA: 1985 TO 1990

[For earlier studies, including those with State-level rankings, see Data Book 1984, table 309, and Data Book 1986, table 348]

Authority and year of publication	Number of areas ranked	Honolulu rank
Boyer and Savageau, 1985 1/	329	61
Thompson, 1986 2/	119	114
Eisenberg and Englander, 1987 3/	300	58
Eisenberg and Englander, 1988 4/	300	43
Eisenberg and Smith, 1989 5/	300	14
Boyer and Savageau, 1989 6/	333	32
Eisenberg and Smith, 1990 7/	300	27

1/ Richard Boyer and David Savageau, Places Rated Almanac, 2nd ed. (Rand McNally and Co., 1985), p. 424. Based on MSA data.

2/ Thomas Patrick Thompson, ed., The National Metropolitan Area Study (Florence, Alabama: The University of North Alabama, Dec. 1986), p. 336. Composite weighted rank among 119 metropolitan statistical areas with populations between 250,000 and 1,000,000.

3/ Richard Eisenberg and Debra Wishik Englander, "The Best Places to Live In America," Money, August 1987, pp. 34-44. Based on MSA data.

4/ Richard Eisenberg and Debra Wishik Englander, "The Best Places to Live In America," Money, August 1988, pp. 76-84. Based on MSA data.

5/ Richard Eisenberg and Marguerite T. Smith, "The Best Places to Live in America," Money, September 1989, pp. 124-141. Based on MSA data.

6/ Richard Boyer and David Savageau, Places Rated Almanac, rev. ed. (Prentice Hall, 1989), p. 397. Based on MSA data.

7/ Richard Eisenberg and Marguerite T. Smith, "The Best Places to Live Now," Money, September 1990, pp. 78-95. Based on MSA data.

Table 340.-- QUALITY OF LIFE SPECIAL INDEX RANKINGS, BY GEOGRAPHIC AREAS: 1985 TO 1988

Type of index, area ranked, authority, and year of publication	Number of areas ranked	Local rank
STRESS INDEXES		
State:		
Linsky and Straus, 1986 1/	50	17
Honolulu:		
ZPG, 1985 2/	184	106
Levine, 1988 3/	286	175
ZPG, 1988 4/	192	105
RETIREMENT LOCATION INDEXES		
Kauai:		
Boyer and Savageau, 1987 5/	131	83
Maui:		
Boyer and Savageau, 1987 5/	131	100

1/ Arnold S. Linsky and Murray A. Straus, Social Stress in the United States (Auburn House Publishing Co., 1986), pp. 38-39 and 51. Based on "State Stress Index," calculated from 1976 data.

2/ Zero Population Growth, Inc., ZPG's 1985 Urban Stress Test (1985). Based on data for large cities rather than MSAs.

3/ Robert Levine, "City Stress Index: 25 Best, 25 Worst," Psychology Today, November 1988, pp. 52-58. Based on MSA data.

4/ Zero Population Growth, Inc., Urban Stress Test (1988). Based on data for large cities rather than MSAs.

5/ Richard Boyer and David Savageau, Retirement Places Rated, 2nd ed. (Rand McNally & Co., 1987), pp. 200-203.

Section 12

LABOR FORCE, EMPLOYMENT, AND EARNINGS

This section presents statistics on the size and composition of the labor force, employment by occupation, industry, class of worker, and place of work, payrolls, wage rates, hours, industrial safety, work disability, unionization, and strikes. Related series appear in Sections 3, 9, 10, and 19 through 23.

The civilian labor force averaged 525,000 in 1989; of this total, 511,000 persons were employed and 13,000 were unemployed and seeking work. The civilian jobcount rose from 434,000 in 1979 to 551,000 a decade later. (The jobcount differs from employment because the latter counts multiple jobholders--"moonlighters"--only once. Eight percent of all persons currently employed in the summer of 1988 held two or more jobs.) Areas with large concentrations of workers in 1980 included downtown Honolulu (46,000), Waikiki (30,000), and Pearl Harbor-Hickam (15,000). The unemployment rate averaged 2.6 percent in 1989, with individual island levels ranging from 2.1 to 9.5 percent. By occupation, one out of four civilian workers is classified as professional or managerial. Activities with especially large numbers of employees include services (145,000 in 1989), retail trade (111,000), and government (101,000). The average annual earnings of wage and salary workers under the Hawaii Employment Security Law reached $20,454 in 1988, or 3.3 percent less than the 1978 average after adjustment for inflation. Average weekly hours in 1989 were 39.4 for all civilian workers and 46.0 for those on full-time schedules, and ranged from 30.4 (for retail trade) to 44.8 (for communication and utilities). Labor union membership was estimated at 161,000 in 1990. Work stoppages in 1989 involved only 48 workers.

Principal sources for the data on labor force, employment, place of work, hours, earnings, unions and strikes are the decennial reports of the U.S. Bureau of the Census, the same agency's Current Population Survey, reports by the U.S. Bureau of Labor Statistics, monthly and annual tabulations by the Hawaii State Department of Labor and Industrial Relations, and annual surveys of pay rates by the Hawaii Employers Council. Historical Statistics of Hawaii, Section 4, includes figures for earlier years. Statistics for the nation as a whole are published in Section 13 of the Statistical Abstract of the United States: 1990.

Table 341.-- LABOR FORCE STATUS, BY SEX: 1950 TO 1980

Sex and labor force status	1950 1/	1960	1970	1980
BOTH SEXES				
Persons 16 years and over	351,375	402,937	522,018	723,479
Labor force	207,952	263,450	344,269	494,223
Armed forces	22,856	47,255	49,785	58,443
Civilian labor force	185,096	216,195	294,484	435,780
Employed	167,571	207,456	285,556	415,181
Unemployed	17,525	8,739	8,928	20,599
Percent of civ. labor force	9.5	4.0	3.0	4.7
Not in labor force	143,423	139,487	177,749	229,256
MALE				
Persons 16 years and over	197,864	219,822	272,726	370,683
Labor force	157,088	186,507	222,221	290,420
Armed forces	22,572	46,626	48,860	54,032
Civilian labor force	134,516	139,881	173,361	236,388
Employed	120,972	135,481	168,940	225,331
Unemployed	13,544	4,400	4,421	11,057
Percent of civ. labor force	10.1	3.1	2.6	4.7
Not in labor force	40,776	33,315	50,505	80,263
FEMALE				
Persons 16 years and over	153,511	183,115	249,292	352,796
Labor force	50,864	76,943	122,048	203,803
Armed forces	284	629	925	4,411
Civilian labor force	50,580	76,314	121,123	199,392
Employed	46,599	71,975	116,616	189,850
Unemployed	3,981	4,339	4,507	9,542
Percent of civ. labor force	7.9	5.7	3.7	4.8
Not in labor force	102,647	106,172	127,244	148,993

1/ Data refer to persons 14 years and over.

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Chracteristics, Hawaii, PC(1)-13C (1962), tables 53 and 54, and Detailed Characteristics, Hawaii, PC(1)-13D (1962), table 115; 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 53; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 61.

Table 342.--LABOR FORCE STATUS OF THE CIVILIAN NONINSTITUTIONAL POPULATION 16 YEARS AND OVER: ANNUAL AVERAGES, 1988 AND 1989

[Numbers in thousands]

Labor force status	Persons 16 years and over			16 to 19 years (both sexes)
	Both sexes	Men	Women	
1988				
Civilian noninstitutional population .	773	366	407	60
Civilian labor force	516	272	244	29
Percent of population	66.8	74.3	60.0	48.1
Employment	500	263	237	26
Percent of population	64.6	71.8	58.2	42.9
Unemployment	16	9	7	3
Rate 1/	3.2	3.4	3.0	10.7
Not in civilian labor force	257	94	163	31
1989				
Civilian noninstitutional population .	790	366	424	54
Civilian labor force	525	271	254	26
Percent of population	66.4	74.1	59.9	47.8
Employment	511	264	248	23
Percent of population	64.7	72.1	58.3	43.1
Unemployment	13	7	6	3
Rate 2/	2.6	2.6	2.5	9.8
Not in civilian labor force	265	95	170	28

1/ Percent of civilian labor force. The error ranges for these rates, at the 90-percent confidence interval, are: both sexes, 2.7-3.7; men, 2.6-4.1; women, 2.3-3.7; 16-19, 7.2-14.3.

2/ Percent of civilian labor force. The error ranges for these rates, at the 90-percent confidence level, are: both sexes, 2.1-3.0; men, 1.9-3.2; women, 1.9-3.2; 16-19, 6.0-13.6.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1988 (Bulletin 2327, May 1989), p. 38, and Geographic Profile of Employment and Unemployment, 1989 (Bulletin 2361, May 1990), p. 38.

Table 343.-- LABOR FORCE PARTICIPATION RATES, BY SEX: ANNUAL AVERAGES, 1979 TO 1989

[Percent of civilian noninstitutional population 16 years and over in civilian labor force]

Year	Both sexes	Male	Female	Both sexes, 16 to 19 years
1979	65.4	75.5	56.5	51.9
1980	63.8	72.0	56.7	50.1
1981	66.7	74.9	59.5	49.2
1982	66.8	75.5	58.9	43.9
1983	66.8	75.1	59.1	41.8
1984	65.5	73.5	58.1	45.3
1985	65.5	72.6	59.1	48.5
1986	66.1	73.8	59.0	47.9
1987	67.4	75.3	60.4	49.7
1988	66.8	74.3	60.0	48.1
1989	66.4	74.1	59.9	47.8

Source: U. S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment (annual).

Table 344.-- CIVILIAN LABOR FORCE, TOTAL AND FEMALE, BY RACE AND HISPANIC ORIGIN: 1989

[Thousands]

Race 1/	Both sexes	Female	Race 1/	Both sexes	Female
All races	525.0	238.8	Asian/Pacific -- con.:		
			Korean	10.2	5.4
White	162.3	72.2	Other Asian/Pac.	9.4	3.8
Asian/Pacific 2/	348.4	161.0	Black	4.0	1.7
Japanese	164.2	78.1	Native American 3/	1.4	0.6
Filipino	72.2	32.2	Race n.e.c.	8.0	3.3
Hawaiian	58.4	26.1			
Chinese	34.0	15.4	Hispanic 4/	30.4	13.2

1/ Based on census definitions. Persons of mixed race are classified by self-identification or race of mother.

2/ Asians and Pacific Islanders include Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese, Hawaiian, Guamanian, and Samoan residents.

3/ American Indian, Eskimo, or Aleut.

4/ Hispanics may be of any race.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Information for Affirmative Action Programs (April 1990), table 2.

Table 345.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE: ANNUAL AVERAGES, 1970 TO 1989

Year	Civilian labor force	Civilian employment	Unemployed	
			Number	Percent
1970	321,550	305,650	15,900	4.9
1971	336,800	313,450	23,350	6.9
1972	351,000	324,050	26,950	7.7
1973	364,600	338,350	26,250	7.2
1974	375,000	345,350	29,650	7.9
1975	382,950	351,100	31,850	8.3
1976	410,000	370,000	40,000	9.8
1977	418,000	388,000	31,000	7.3
1978	420,000	388,000	32,000	7.7
1979	422,000	395,000	26,000	6.3
1980	440,000	418,000	21,000	4.9
1981	451,000	427,000	24,000	5.4
1982	461,000	430,000	31,000	6.7
1983	472,000	442,000	30,000	6.5
1984	472,000	445,000	27,000	5.6
1985	479,000	452,000	27,000	5.6
1986	492,000	468,000	24,000	4.8
1987 1/ .	514,000	494,000	20,000	3.8
1988 1/ .	518,000	502,000	16,000	3.2
1989	525,000	511,000	13,000	2.6

1/ Revised from *Data Book 1989*, table 338.

Source: Hawaii State Department of Labor and Industrial Relations, *Labor Force Data Book* (March 1978), as revised annually through April 1990.

Table 346.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE, FOR COUNTIES AND ISLANDS: ANNUAL AVERAGES, 1979 TO 1989

[Data for 1980 and later years are not directly comparable to estimates for earlier years. Island data may not add exactly to State totals in preceding table]

Year	Oahu	Hawaii County	Kauai County	Maui County			
				County total	Lanai	Maui	Molokai
CIVILIAN LABOR FORCE							
1979	331,100	37,250	18,500	34,150	1,750	28,650	3,700
1980	338,350	43,550	19,550	37,550	1,300	33,900	2,350
1981	345,700	45,450	20,100	39,800	1,250	36,000	2,500
1982 1/ ...	350,100	47,200	20,800	42,850	1,300	38,950	2,600
1983 1/ ...	357,100	48,350	21,650	44,850	1,150	40,950	2,750
1984 1/ ...	357,100	48,650	21,300	44,950	1,150	41,250	2,550
1985 1/ ...	359,600	50,400	22,050	46,950	1,050	43,550	2,300
1986	368,700	51,300	23,400	48,600	1,050	45,050	2,500
1987 1/ ...	383,400	54,050	24,900	51,600	1,000	48,050	2,600
1988 1/ ...	383,750	54,500	26,000	53,750	1,050	50,200	2,500
1989	384,500	56,900	27,600	55,000	1,100	51,300	2,600
CIVILIAN EMPLOYMENT							
1979	311,050	34,350	17,500	32,050	1,650	27,100	3,300
1980	322,800	40,850	18,700	35,650	1,200	32,450	2,050
1981	328,500	42,150	18,900	37,450	1,150	34,150	2,150
1982	328,600	42,700	19,150	39,550	1,100	36,250	2,200
1983 1/ ...	336,550	44,050	20,000	41,450	1,050	38,150	2,200
1984 1/ ...	338,050	44,900	19,800	42,250	1,000	39,000	2,200
1985 1/ ...	341,150	46,150	20,550	44,150	850	41,300	2,000
1986	352,500	47,500	22,000	46,050	900	42,950	2,150
1987 1/ ...	369,850	50,950	23,850	49,350	850	46,250	2,250
1988 1/ ...	373,150	51,800	25,050	52,000	1,000	48,750	2,300
1989	375,950	54,700	26,800	53,550	1,000	50,200	2,350

Continued on next page.

Table 346.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE, FOR COUNTIES AND ISLANDS: ANNUAL AVERAGES, 1979 TO 1989 -- Con.

Year	Oahu	Hawaii County	Kauai County	Maui County			
				County total	Lanai	Maui	Molokai
UNEMPLOYED							
1979	20,050	2,900	1,000	2,050	100	1,550	400
1980	15,550	2,700	850	1,900	100	1,500	350
1981	17,150	3,350	1,150	2,350	150	1,900	300
1982	21,500	4,500	1,700	3,300	250	2,700	400
1983 1/ ..	20,600	4,350	1,650	3,400	100	2,800	550
1984 1/ ..	19,100	3,700	1,500	2,700	150	2,200	350
1985	18,450	4,250	1,500	2,800	200	2,250	300
1986	16,200	3,850	1,400	2,550	100	2,100	350
1987 1/ ..	13,550	3,100	1,100	2,250	150	1,800	300
1988	10,600	2,700	950	1,750	100	1,450	200
1989	8,550	2,200	800	1,450	100	1,100	250
PERCENT UNEMPLOYED							
1979 1/ ..	6.1	7.8	5.3	6.1	5.5	5.5	10.8
1980 1/ ..	4.6	6.2	4.2	5.1	7.7	4.4	13.9
1981 1/ ..	5.0	7.3	5.8	5.9	10.6	5.2	12.9
1982 1/ ..	6.1	9.6	8.1	7.7	17.1	6.9	15.2
1983 1/ ..	5.8	9.0	7.7	7.6	9.0	6.8	19.4
1984 1/ ..	5.3	7.7	7.0	6.0	11.1	5.4	13.8
1985 1/ ..	5.1	8.5	6.8	5.9	20.1	5.2	13.0
1986 1/ ..	4.4	7.5	5.9	5.3	11.5	4.7	13.4
1987 1/ ..	3.5	5.8	4.3	4.4	14.8	3.7	12.1
1988 1/ ..	2.8	4.9	3.7	3.3	7.4	2.9	8.8
1989	2.2	3.9	2.8	2.6	9.1	2.1	9.5

1/ Revised from Data Book 1989, table 339.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), tables 2-8, as revised annually through April 1990.

Table 347.-- CHARACTERISTICS OF THE INSURED UNEMPLOYED: ANNUAL AVERAGES, 1989

[Percent distribution. Includes all eligible claimants who filed new claims for unemployment insurance benefits during the year. Includes both intrastate and interstate agent claimants]

Characteristic	Percent	Characteristic	Percent
Total	100.0	Industry--con.:	
		Fin., ins., real estate	4.3
Age:		Services	21.4
Under 22 years	3.3	Hotel	4.8
22 to 24 years	5.5	Others and not avail.	9.0
25 to 34 years	32.1		
35 to 44 years	30.1	Occupation:	
45 to 54 years	16.0	Prof., tech., mgr.	20.8
55 to 64 years	10.6	Clerical, sales	18.7
65 years and over	2.4	Services	11.0
		Farm, fish., forest.	6.0
Sex:		Processing	1.5
Male	60.8	Machine trades	2.1
Female	39.2	Bench work	1.5
		Structural work	13.9
Industry:		Miscellaneous	8.2
Government	0.5	Not available	16.3
Agriculture	8.7		
Construction	21.7	Duration:	
Manufacturing	7.1	1 to 4 weeks	41.7
Trans., commun., util.	9.6	5 to 14 weeks	37.0
Wholesale, retail trade	17.6	15 weeks and over	21.2

Source: Hawaii State Department of Labor and Industrial Relations, Characteristics of the Insured Unemployed in Hawaii--1989.

Table 348.-- JOBCOUNT, BY COUNTIES: ANNUAL AVERAGES, 1970 TO 1989

[Persons holding more than one job are counted in each position. As a result, these data differ from corresponding estimates of employment, reported elsewhere in this section. Active-duty armed forces are excluded, unless also employed in civilian jobs. Persons not working because of labor disputes are included. Because of a change in the method of estimating nonagricultural self-employed and unpaid family workers, jobcount estimates for 1987, 1988, and 1989 are not exactly comparable to those for earlier years]

Year	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
1970	331,580	270,310	28,410	12,540	20,320
1971	339,070	276,260	29,000	12,960	20,840
1972	349,950	285,900	29,450	13,050	21,550
1973	365,050	298,900	30,150	13,600	22,250
1974	374,650	306,350	31,000	13,600	23,650
1975	380,900	308,550	32,350	14,550	25,400
1976	387,000	312,100	33,000	15,250	26,600
1977	398,600	319,900	34,100	15,900	28,450
1978	417,500	334,400	35,400	16,650	30,950
1979	434,450	348,150	36,300	17,200	32,650
1980	448,150	357,900	38,200	18,400	33,850
1981	449,900	357,350	39,050	18,300	35,150
1982	446,050	352,150	39,050	18,300	36,600
1983	453,750	357,100	39,850	18,900	37,850
1984	461,000	362,200	41,000	18,950	38,950
1985	473,150	369,800	42,400	19,900	41,100
1986	486,650	379,600	43,300	21,200	42,500
1987	504,900	391,750	45,600	22,450	45,100
1988 1/ .	524,400	404,500	47,500	24,250	48,100
1989	551,150	421,550	51,600	26,800	51,150

1/ Revised from Data Book 1989, table 341.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1990; Labor Force Statistics, Bull. No. 70-F and 72-F.

Table 349.-- JOBCOUNT, BY INDUSTRY: ANNUAL AVERAGES, 1980 AND 1986 TO 1989

Industry	1980	1986	1987	1988 1/	1989
Nonagriculture, wage and salary	404,100	438,550	459,950	478,050	504,800
Contract construction	23,950	18,650	21,200	23,400	29,200
Manufacturing	23,350	22,050	21,900	22,000	21,300
Durable goods	4,700	3,750	3,950	4,250	4,200
Nondurable goods	18,650	18,250	17,950	17,750	17,100
Food processing	11,150	10,100	9,950	9,950	9,350
Pineapple	2,900	2,000	2,050	2,050	1,750
Sugar	3,900	3,300	3,050	2,850	2,500
Other	4,350	4,850	4,800	5,050	5,100
Textile, apparel	3,050	3,350	3,150	2,800	2,550
Printing, publishing	3,100	3,400	3,400	3,550	3,650
Other nondurables	1,350	1,400	1,450	1,450	1,550
Transp., commun., utilities ..	31,200	34,200	36,800	38,000	40,200
Transportation	21,500	24,550	26,900	27,750	30,100
Communication	7,150	[illegible],100	7,250	7,550	7,300
Utilities	2,550	2,550	2,650	2,650	2,800
Trade	105,250	117,950	123,750	127,450	132,950
Wholesale	18,600	19,550	20,400	20,750	21,950
Retail	86,700	98,400	103,400	106,750	111,000
Finance, insur., real estate .	32,850	33,150	33,700	34,450	35,100
Services and miscellaneous ...	98,450	118,750	126,500	133,250	144,600
Hotels	24,900	29,250	31,250	34,350	37,000
Other services, misc.	73,550	89,500	95,250	98,900	107,600
Government	89,050	93,850	96,050	99,500	101,450
Federal	30,000	32,100	32,800	33,800	33,850
Air Force	2,650	2,650	2,550	2,450	2,350
Army	4,100	5,600	5,600	5,500	5,550
Navy	11,950	12,150	11,950	12,250	12,250
Other	11,250	11,750	12,650	13,600	13,650
State	45,150	48,600	49,900	51,850	53,550
Local	13,900	13,150	13,400	13,850	14,100
Agriculture, wage and salary ...	10,650	10,150	10,550	10,000	9,600
Sugar	4,950	4,000	3,800	3,700	3,300
Pineapple	2,500	2,050	1,900	1,750	1,850
Other	3,200	4,100	4,800	4,550	4,500
Nonagric., self-employed 2/	28,300	34,750	30,700	32,750	33,250
Agric., self-employed 3/	4,600	3,200	3,700	3,600	3,500
Labor disputes	500	200	50	100	(Z)

Footnotes and source follow next table.

Table 350.-- JOBCOUNT BY INDUSTRY, BY COUNTIES: ANNUAL AVERAGE, 1989

Industry	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Nonagriculture, wage and salary	504,800	395,600	41,050	23,350	44,750
Contract construction	29,200	22,450	2,400	1,300	3,050
Manufacturing	21,300	16,050	2,350	1,000	1,900
Durable goods	4,200	3,750	200	(Z)	250
Nondurable goods	17,100	12,300	2,150	1,000	1,650
Food processing	9,350	5,400	1,750	850	1,350
Textile, apparel	2,550	2,500	(NS)	(NS)	(NS)
Printing, publishing	3,650	3,050	(NS)	(NS)	(NS)
Other nondurables	1,550	1,350	(NS)	(NS)	(NS)
Transp., commun., utilities .	40,200	32,650	2,400	2,400	2,750
Transportation	30,100	24,950	(NS)	(NS)	(NS)
Communication	7,300	5,750	(NS)	(NS)	(NS)
Utilities	2,800	1,950	(NS)	(NS)	(NS)
Trade	132,950	102,050	11,400	6,400	13,100
Wholesale	21,950	18,500	1,750	400	1,250
Retail	111,000	83,500	9,650	6,000	11,850
Finance, insur., real estate	35,100	28,650	2,050	1,450	3,000
Services and miscellaneous ..	144,600	108,950	12,500	7,600	15,500
Hotels	37,000	18,700	6,000	4,250	8,050
Other services, misc.	107,600	90,250	6,500	3,350	7,450
Government	101,450	84,800	8,000	3,200	5,450
Federal	33,850	32,350	800	300	400
Air Force	2,350	2,250	(NS)	(NS)	(NS)
Army	5,550	5,450	(NS)	(NS)	(NS)
Navy	12,250	12,150	(NS)	(NS)	(NS)
Other	13,650	12,500	(NS)	(NS)	(NS)
State	53,550	42,650	5,300	2,000	3,600
Local	14,100	9,800	1,900	850	1,450
Agriculture, wage and salary ..	9,600	2,300	3,550	1,200	2,550
Sugar	3,300	450	1,000	950	900
Pineapple	1,850	700	-	-	1,100
Other	4,500	1,150	2,550	250	550
Nonagric., self-employed 2/ ...	33,250	23,000	4,700	2,000	3,500
Agric., self-employed 3/	3,500	650	2,300	250	350
Labor disputes	(Z)	(Z)	-	-	-

Footnotes and source on next page.

Table 350.-- JOBCOUNT BY INDUSTRY, BY COUNTIES: ANNUAL AVERAGE, 1989 -- Con.

Z Fewer than 50.
NS Not shown separately.
1/ Revised from *Data Book 1989*, tables 342 and 343.
2/ Includes unpaid family workers and domestics. Data for 1987-1989 are not comparable to earlier years.
3/ Includes unpaid family workers.

Source: Hawaii State Department of Labor and Industrial Relations, *Labor Force Data Book* (March 1978), as revised annually through April 1990.

Table 351.-- NUMBER OF JOBS HELD BY CURRENTLY EMPLOYED CIVILIANS, BY COUNTIES: JULY-AUGUST 1988

[Based on a telephone survey of 3,927 persons 18 years old or over. Excludes armed forces]

Number of jobs held	State total	Honolulu	Hawaii	Kauai	Maui
Currently employed ...	501,776	385,870	50,457	21,338	44,111
One job only	459,800	355,088	45,441	19,626	39,645
Full-time	382,936	294,579	37,007	16,798	34,552
Part-time	76,864	60,509	8,434	2,828	5,093
More than one job	39,808	28,897	4,809	1,636	4,466
Percent	1/ 7.9	7.5	9.5	7.7	10.1
Full-time and other	31,784	23,303	3,485	1,523	3,473
Several part-time	8,024	5,594	1,324	113	993
No response	2,168	1,885	207	76	-

1/ This percentage differs appreciably from that found by the U.S. Bureau of Labor Statistics in an unpublished tabulation of the May 1989 Current Population Survey. The Hawaii multiple jobholding rate reported there was 5.2 percent (plus or minus 2.6 percentage points at the 90-percent confidence level), ranking Hawaii 41st among the 50 States and D.C. The corresponding nationwide rate was 6.2 percent. See John F. Stinson, Jr., "Multiple jobholding up sharply during the 1980's," *Monthly Labor Review*, July 1990, and unpublished State data provided to DBED September 20, 1990.

Source: Hawaii State Department of Business and Economic Development, Tourism Branch, special tabulation from Hawaii Tourism Impact Survey 1988.

Table 352.-- CIVILIAN EMPLOYMENT, TOTAL AND PART-TIME: 1979 TO 1988

Year	Total employment (1,000)	Part-time employment			
		Total part-time		For economic reasons (1,000)	Voluntary (1,000)
		Number (1,000)	Percent		
1979	374	65	17.4	19	46
1980	379	72	19.0	18	54
1981	425	79	18.6	23	56
1982	428	82	19.2	24	58
1983	442	80	18.1	24	56
1984	446	90	20.2	29	61
1985	454	92	20.3	30	62
1986	465	89	19.1	24	65
1987	495	99	20.0	27	72
1988	499	95	19.0	19	76

Source: U.S. Bureau of Labor Statistics, cited in Hawaii State Department of Labor and Industrial Relations, Labor Area News, April 1990, p. 4.

Table 353.-- LABOR FORCE AND JOB ESTIMATES AND PROJECTIONS: 1985 TO 2010

[Thousands. Annual averages. Series M-K projections, developed by DBED]

Subject	Estimates: 1985	Projections				
		1990	1995	2000	2005	2010
Civilian labor force 1/ (1,000)	479.0	543.8	599.1	646.5	683.4	721.7
Persons employed 1/	452.0	516.7	568.6	614.0	649.5	686.3
Total jobs (1,000)	541.5	611.0	665.5	713.1	750.4	789.1
Armed forces	68.4	68.4	68.4	68.4	68.4	68.4
Civilian jobs 1/	473.1	542.6	597.0	644.7	682.0	720.6
Self-employed	36.9	42.3	46.6	50.3	53.2	56.2
Wage and salary jobs by sector .	436.2	500.2	550.5	594.4	628.8	664.4
Agriculture	10.4	10.9	11.3	11.7	12.0	12.4
Food processing	10.0	10.0	9.9	9.7	9.4	9.1
Miscellaneous manufacturing ..	11.9	12.7	13.3	13.9	14.5	15.0
Construction	17.2	21.2	23.3	25.0	26.1	27.1
Transportation, communication, and utilities	33.2	37.3	40.2	42.5	43.9	45.3
Trade (exc. eating & drinking)	75.6	88.4	97.7	106.2	113.0	120.0
Eating and drinking places ...	40.1	48.1	52.7	57.3	61.4	65.9
Finance, insurance, and real estate	31.9	35.4	39.2	41.6	42.9	44.5
Hotels	29.0	34.5	38.1	41.3	43.7	46.3
Other services	83.6	103.6	121.1	136.5	149.4	163.3
State and local government ...	60.9	65.8	70.7	75.3	78.8	81.4
Federal government 1/	32.4	32.5	32.9	33.3	33.7	34.1

1/ Includes civilian employees of the armed forces.

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 9.

Table 354.-- EMPLOYMENT BY INDUSTRY: 1980 AND 1970

Industry	1980	1970
Employed persons 16 years and over	415,181	285,556
Agriculture, forestry, and fisheries	14,560	13,161
Mining	233	322
Construction	29,888	26,637
Manufacturing	32,914	31,188
Nondurable goods	21,234	21,173
Durable goods	11,680	10,015
Transportation, communications, and other public utilities	36,478	26,403
Wholesale and retail trade	98,542	61,044
Finance, insurance, and real estate	31,648	14,356
Business and repair services	17,832	8,978
Personal services	31,288	20,301
Entertainment and recreation services	6,862	3,756
Professional and related services	73,363	48,310
Public administration	41,573	31,100

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 61.

Table 355.-- EMPLOYMENT BY CLASS OF WORKER: 1940 TO 1980

[Persons 14 years and over through 1960; 16 years and over, 1970 and 1980]

Class of worker	1940	1950	1960	1970	1980
All employed civilians	153,796	167,571	209,370	285,556	415,181
Private wage and salary workers	113,551	111,036	144,602	200,912	300,315
Government workers	18,553	34,400	46,078	70,547	90,401
Self-employed workers	15,967	19,192	17,009	12,832	22,965
Unpaid family workers	5,725	2,943	1,681	1,265	1,500

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Characteristics, Hawaii, Final Report PC(1)-13C (February 1962), table 56; 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 56; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 67.

Table 356.-- OCCUPATION, BY SEX: 1980 AND 1970

Occupation	Both sexes		Females only	
	1980	1970	1980	1970
Employed persons 16 years and over ...	415,181	285,556	189,850	116,616
Managerial and professional specialty occupations ...	97,606	58,242	42,212	22,565
Executive, administrative, and managerial occupations ...	48,671	25,048	16,900	6,129
Professional specialty occupations ...	48,935	33,194	25,312	16,436
Technical, sales, and administrative support occupations ...	132,651	83,698	89,078	53,113
Technicians and related support occupation ...	11,982	7,442	4,501	2,027
Sales occupations ...	47,475	28,227	27,465	15,571
Administrative support occupations, including clerical ...	73,194	48,029	57,112	35,515
Service occupations ...	74,149	44,024	41,691	26,766
Private household occupations ...	1,547	2,131	1,376	2,024
Protective service occupations ...	7,578	4,304	855	143
Service occupations, except protective and household ...	65,024	37,589	39,460	24,599
Farming, forestry, and fishing occupations	14,154	12,572	2,785	2,118
Precision production, craft, and repair occupations ...	48,198	43,484	3,941	2,731
Operators, fabricators, and laborers ...	48,423	43,536	10,143	9,323
Machine operators, assemblers, and inspectors ...	14,000	13,589	5,730	5,743
Transportation and material moving occupations ...	16,430	13,767	1,132	472
Handlers, equipment cleaners, helpers, and laborers ...	17,993	16,180	3,281	3,108

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61.

Table 357.-- OCCUPATION OF EMPLOYED CIVILIANS, BY SEX: ANNUAL AVERAGES, 1989

Occupation	Both sexes	Men	Women
All occupations (number in thousands)	511	264	248
Percent	100.0	100.0	100.0
Managerial and professional specialty:			
Executive, administrative, and managerial	14.9	16.5	13.2
Professional specialty	13.5	11.6	15.5
Technical, sales, and administrative support:			
Technicians and related support	2.2	2.7	1.7
Sales	14.2	11.1	17.5
Administrative support, including clerical	14.3	4.7	24.6
Service occupations	16.5	13.0	20.2
Precision production, craft, and repair	10.5	19.2	1.3
Operators, fabricators, and laborers:			
Machine operators, assemblers, and inspectors	2.3	2.7	1.9
Transportation and material moving	3.8	6.9	.6
Handlers, equipment cleaners, helpers, and laborers	3.6	5.4	1.6
Farming, forestry, and fishing	4.1	6.3	1.8

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1989 (Bulletin 2361, May 1990), pp. 58-59.

Table 358.-- PLACE OF RESIDENCE AND PLACE OF WORK OF EMPLOYED PERSONS 16 YEARS AND OVER FOR THE CITY AND COUNTY OF HONOLULU, BY AREAS: 1980

[Residence and labor force status as of April 1; place of work as of preceding week. Includes armed forces. For census tract data, see Data Book 1987, pp. 359-361]

Area	Census tract equivalent	Workers by place of--	
		Residence	Work 1/
County total	1.02-114	369,523	356,692
Honolulu CDP	1.02-72, 114	183,677	246,969
Waikiki	18.01-20.02	9,094	30,011
Ala Moana	37	1,326	18,578
Kakaako	38, 39	407	26,696
Central Business District ...	40, 42, 51, 52	3,193	33,478
Iwilei-Kalihi Kai	57-60	6,442	21,571
Airport	68.03-72	5,061	33,714
Other areas	-	158,154	82,921
Rest of Oahu	73-113	185,846	109,723
Ewa	73-89.03	93,223	42,044
Wahiawa	90-95.05	20,475	20,940
Waianae	96.01-98	9,611	4,327
Waialua	99.01-100	4,405	2,031
Koolauloa	101-102.02	5,711	2,214
Koolaupoko	103.02-113	52,409	19,337
Unknown	-	-	18,830

1/ Excludes residents who worked away from the City and County of Honolulu and nonresidents who worked within the area.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Honolulu SMSA, PHC80-2-183 (1983), table P-9, and Urban Transportation Planning Package, printouts (March 1985).

Table 359.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES: 1979 TO 1989

Year	Number of employers, December 1/	Average employment	Wages and salaries	
			Total ($1,000)	Per worker (dollars)
INCLUDING GOVERNMENT				
1979	19,639	400,963	4,983,844	12,429
1980	19,988	412,281	5,585,489	13,548
1981	20,190	414,830	6,002,943	14,471
1982	20,259	408,791	6,281,953	15,367
1983	20,937	413,767	6,668,001	16,115
1984	21,288	421,821	7,050,512	16,714
1985	21,945	434,400	7,530,505	17,335
1986	24,510	446,756	8,072,318	18,069
1987	24,686	468,027	8,920,628	19,060
1988	24,787	484,483	9,909,719	20,454
1989	26,149	510,232	11,041,771	21,641
EXCLUDING GOVERNMENT				
1984	21,282	332,227	5,150,338	15,502
1985	21,939	343,400	5,518,268	16,070
1986	24,498	355,192	5,997,767	16,886
1987	24,680	373,955	6,738,448	18,019
1988	24,781	389,024	7,564,054	19,444
1989	26,143	413,046	8,535,379	20,664
PRIVATE NON-AGRICULTURAL				
1984	20,856	320,902	4,973,005	15,497
1985	21,510	332,092	5,344,772	16,094
1986	23,992	343,555	5,817,270	16,933
1987	24,145	362,271	6,543,781	18,063
1988	24,211	376,884	7,341,568	19,480
1989	25,554	401,002	8,307,991	20,718

1/ Beginning in 1986, includes employers reporting 1 or more employees at any time during the year, even if they reported no employees for December.

Source: Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual) and records.

Table 360.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, BY COUNTIES: 1989

County or island	Number of employers, Dec.	Average employment	Total wages ($1,000)	Average annual wage (dollars)
INCLUDING GOVERNMENT				
State total	26,149	510,232	11,041,771	21,641
City and Co. of Honolulu .	18,842	393,532	8,816,418	22,403
Hawaii County	3,059	44,559	835,946	18,760
Kauai County	1,423	23,950	450,643	18,816
Maui County	2,831	48,190	938,764	19,480
EXCLUDING GOVERNMENT				
State total	26,143	413,046	8,535,379	20,664
City and Co. of Honolulu .	18,839	312,924	6,726,096	21,494
Hawaii County	3,056	36,587	638,208	17,444
Kauai County	1,420	20,765	369,138	17,777
Maui County	2,828	42,770	801,937	18,750

Source: Hawaii State Department of Labor and Industrial Relations, 1989 Employment and Payrolls in Hawaii (September 1990).

Table 361.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, BY INDUSTRY: 1989

Industry	Number of employers, Dec.	Average employment	Total wages ($1,000)	Average annual wage (dollars)
All industries	26,149	510,232	11,041,771	21,641
Government	6	97,186	2,506,392	25,790
Federal	1	33,932	973,290	28,684
State	1	49,192	1,164,364	23,670
County	4	14,062	368,739	26,222
Private	26,143	413,046	8,535,379	20,664
Agriculture, forestry, fisheries	589	12,044	227,388	18,880
Sugar	17	3,493	80,073	22,924
Pineapple	5	1,891	39,333	20,800
Other	567	6,660	107,981	16,213
Mining and contract construction	2,482	29,010	986,180	33,994
Manufacturing	973	21,648	494,879	22,860
Sugar mills	12	2,549	58,352	22,892
Pineapple canning	2	1,858	41,087	22,114
Other food processing	203	5,217	98,561	18,892
Other manufacturing	756	12,024	296,879	24,691
Transportation	1,143	29,911	718,786	24,031
Communications	109	7,325	237,484	32,421
Utilities	46	2,787	118,945	42,678
Wholesale trade	2,282	22,026	543,243	24,664
Retail trade	5,609	111,051	1,493,009	13,444
Eating and drinking places	1,926	45,620	471,732	10,340
Other retail trade	3,683	65,431	1,021,277	15,608
Finance, insurance, real estate	3,393	35,314	882,516	24,991
Services	9,241	141,507	2,824,176	19,958
Hotels, rooming houses, etc.	228	36,864	649,446	17,617
Health services	1,969	27,310	762,813	27,932
Other services	7,044	77,333	1,411,917	18,258
Nonclassifiable establishments	276	423	8,774	20,743

Source: Hawaii State Department of Labor and Industrial Relations, 1989 Employment and Payrolls in Hawaii (September 1990), pp. 5-6.

Table 362.-- AVERAGE ANNUAL WAGE FOR EMPLOYEES COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, IN CURRENT AND CONSTANT DOLLARS, BY CLASS OF WORKER: 1979 AND 1989

Class of worker	1979: current dollars	1989		Percent change, 1979-1989	
		Current dollars	1979 dollars 1/	Current dollars	1979 dollars 1/
All classes ..	12,429	21,641	12,495	74.1	0.5
Federal	19,236	28,684	16,561	49.1	-13.9
State 2/	12,609	23,670	13,666	87.7	8.4
County	13,124	26,222	15,140	99.8	15.4
Private	11,732	20,664	11,931	76.1	1.7

1/ Deflated by the all-items consumer price index (CPI-U) for Honolulu. The all-items index increased 73.2 percent during this period.

2/ Average for 1979 is understated because of erroneous inclusion of uncovered student workers, omitted in 1989 data.

Source: Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual).

Table 363.-- NONGOVERNMENTAL REPORTING UNITS AND EMPLOYMENT, BY SIZE OF FIRM: DECEMBER 1989

Subject	All units	Employment-size class					
		1 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 or more
Reporting units ..	26,143	14,361	4,958	3,219	2,182	741	682
Employment	427,661	24,699	32,693	43,470	65,995	51,021	209,783

Source: Hawaii State Department of Labor and Industrial Relations, 1989 Employment and Payrolls in Hawaii (September 1990), p. 19.

Table 364.-- ANNUAL WAGES PER EMPLOYEE, TOTAL AND PRIVATE: 1979 TO 1989

Year	Annual wages per employee (dollars)		Hawaii as percent of U.S.		Rank 1/	
	Total	Private only	Total	Private only	Total	Private only
1979	12,335	11,700	94.1	89.4	27	34
1980	13,491	12,695	94.2	88.6	27	37
1981	14,411	13,567	92.2	86.9	32	41
1982	15,353	14,202	92.0	85.5	31	42
1983	16,108	14,898	92.1	85.8	30	40
1984	16,701	15,456	91.0	85.0	31	41
1985	17,329	16,064	90.3	84.7	31	40
1986	18,101	16,907	90.7	85.6	31	38
1987	19,091	18,024	91.5	87.4	25	35
1988	20,444	19,437	93.5	89.8	22	27
1989	21,624	20,646	95.8	92.7	18	24

1/ Among 50 States and D.C.

Source: U.S. Bureau of Labor Statistics, Employment and Wages, Annual Averages (annual report), and Release USDL 90-431 (Aug. 22, 1990).

Table 365.--MINIMUM WAGE CHRONOLOGY: 1942 TO 1990

[Dollars per hour. As of July 1, unless otherwise specified]

Effective date	Oahu	Other islands	Effective date	State	Effective date	State
1942 1/ ..	0.25	0.20	1958	1.00	1975	2.40
1943	0.30	0.25	1962	1.15	1978	2.65
1945	0.40	0.40	1964 2/ ..	1.25	1979	2.90
1953	0.65	0.55	1969	1.40	1980	3.10
1955	0.75	0.65	1970	1.60	1981	3.35
1957	0.90	0.85	1974	2.00	1988 2/ ..	3.85

1/ At inception of minimum wage law, April 1, 1942.

2/ January 1.

Source: Hawaii State Department of Labor and Industrial Relations, records.

Table 366.-- HOURLY WAGE WORKERS EARNING $5.00 OR LESS PER HOUR, BY WORKWEEK, INDUSTRY, AND MAJOR OCCUPATIONAL GROUP: JULY 1989

Workweek, industry, and major occupational group	Hourly wage (dollars)						
	5.00 or less	3.85 or less 1/	3.86 to 4.00	4.01 to 4.25	4.26 to 4.50	4.51 to 4.75	4.76 to 5.00
Total	122,690	35,250	21,200	16,780	17,380	11,900	20,190
Workweek:							
Full-time	56,120	22,720	5,470	5,690	6,220	5,800	10,220
Part-time	66,580	12,530	15,730	11,090	11,170	6,100	9,960
Industry:							
Agriculture ...	2,400	260	480	360	520	230	550
Construction, mining	420	40	30	-	80	10	260
Manufacturing .	4,580	130	490	540	1,340	330	1,760
Trans., comm., util.	3,380	-	480	560	580	370	1,390
Wholesale trade	3,100	90	590	570	700	270	880
Retail trade ..	66,390	16,050	15,410	12,620	8,940	5,420	7,960
Fin., ins., real est. ...	2,080	260	140	70	450	300	860
Services	40,360	18,410	3,600	2,060	4,780	4,970	6,540
Occupational group:							
Prof., tech., mgr.	7,230	4,000	190	220	1,330	500	1,000
Clerical sales.	33,450	8,860	7,460	3,560	4,820	3,070	5,690
Service	59,000	15,800	10,630	10,330	7,420	7,000	7,820
Agric., fish., forest.	4,320	2,470	270	240	420	200	720
Processing	1,480	-	130	80	140	50	1,080
Machine trades	390	60	60	40	100	50	80
Benchwork	2,350	100	270	330	1,010	260	380
Structural work	5,170	2,410	1,070	30	640	10	1,020
Miscellaneous .	8,520	880	1,120	1,970	1,470	760	2,330
Nonclassifiable	810	680	-	-	50	-	80

1/ The minimum hourly wage is $3.85. The 35,250 minimum-wage workers comprised 8.7 percent of all civilian workers in the State.

Source: Hawaii State Department of Labor and Industrial Relations, *Minimum Wage Workers in Hawaii* (November 1989).

Table 367.-- HOURS AND EARNINGS IN SPECIFIED INDUSTRIES: ANNUAL AVERAGES, 1984 TO 1989

Subject	1984	1985	1986	1987	1988	1989
Average weekly earnings (dollars)						
Contract construction	607.37	627.32	642.80	679.30	706.10	756.56
Manufacturing	318.14	323.51	344.65	366.42	393.60	414.80
Food and kindred products ..	292.98	303.32	321.40	341.01	362.03	368.34
Communication and utilities ..	512.09	542.15	582.15	608.75	650.62	683.65
Trade 1/	225.72	228.72	231.62	235.95	245.70	259.20
Wholesale trade	309.75	311.04	326.10	328.90	342.88	358.27
Retail trade 1/	198.13	200.95	200.26	206.30	216.04	228.30
Banking & credit agencies	237.78	267.80	291.78	297.11	305.33	321.48
Hotels	234.57	243.42	259.38	265.22	281.22	300.81
Average weekly hours						
Contract construction	36.9	36.6	36.9	38.4	37.8	38.6
Manufacturing	38.1	37.4	38.9	39.4	40.0	40.0
Food and kindred products ..	38.0	36.9	39.1	40.5	41.0	40.3
Communication and utilities ..	41.0	41.8	42.4	42.6	44.2	44.8
Trade 1/	33.0	33.1	32.9	32.5	32.5	32.4
Wholesale trade	38.1	38.4	38.5	38.2	38.7	38.9
Retail trade 1/	31.3	31.3	31.0	30.7	30.6	30.4
Banking & credit agencies	38.6	38.7	38.8	37.8	38.6	38.5
Hotels	33.8	33.3	34.4	33.7	33.8	34.3
Average hourly earnings (dollars)						
Contract construction	16.46	17.14	17.42	17.69	18.68	19.60
Manufacturing	8.35	8.65	8.86	9.30	9.84	10.37
Food and kindred products ..	7.71	8.22	8.22	8.42	8.83	9.14
Communication and utilities ..	12.49	12.97	13.73	14.29	14.72	15.26
Trade 1/	6.84	6.91	7.04	7.26	7.56	8.00
Wholesale trade	8.13	8.10	8.47	8.61	8.86	9.21
Retail trade 1/	6.33	6.42	6.46	6.72	7.06	7.51
Banking & credit agencies	6.16	6.92	7.52	7.86	7.91	8.35
Hotels	6.94	7.31	7.54	7.87	8.32	8.77

1/ Excludes eating and drinking establishments.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1990.

Table 368.-- AVERAGE PAY RATES FOR SELECTED JOB CLASSIFICATIONS IN PRIVATE INDUSTRY: 1985 TO 1990

Job classification	1985	1986	1987	1988	1989	1990
MONTHLY RATES						
Junior typist	1,036	1,084	1,103	1,224	1,279	1,238
Clerk-stenographer	1,384	1,485	1,583	1,581	1,769	1,737
Secretary	1,407	1,461	1,516	1,597	1,680	1,762
Data entry operator	1,139	1,194	1,218	1,254	1,333	1,414
Bookkeeper, full-charge	1,707	1,794	1,865	2,034	1,914	2,108
Engineering drafting technician	1,952	1,891	2,049	2,057	2,216	2,065
Hospital attendant	1,101	1,135	1,171	1,232	1,306	1,376
Staff nurse	2,081	2,159	2,287	2,534	2,746	2,999
HOURLY RATES						
Housekeeper	6.078	6.412	6.714	7.183	7.503	7.856
Cook, general	8.626	8.950	8.747	9.074	9.082	9.603
Waiter/waitress	3.676	3.846	3.866	4.212	4.259	4.409
Laborer (light)	6.959	7.187	7.399	7.521	7.672	7.785
Carpenter (maintenance)	10.139	10.405	10.768	11.156	11.701	12.007
Electrician (maintenance) ...	11.529	12.191	12.486	13.148	13.447	14.300
Automotive mechanic	10.191	10.753	11.154	11.531	11.872	12.486
Truck driver (1.5-5 tons) ...	8.853	8.734	9.783	10.159	10.664	10.397

Source: Hawaii Employers Council, Pay Rates in Hawaii (annual).

Table 369.-- AVERAGE PAY RATES FOR SELECTED JOB CLASSIFICATIONS IN PRIVATE INDUSTRY, BY COUNTIES OR ISLANDS: 1990

[In dollars]

Job classification and year	State average	Kauai	Oahu	Maui County	Hawaii County
MONTHLY RATES					
Junior typist	1,238	...	1,236	...	...
Clerk-stenographer	1,737	...	1,710	...	...
Secretary	1,762	1,717	1,760	1,854	1,567
Data entry operator	1,414	...	1,418	...	...
Bookkeeper, full-charge	2,108	...	2,084	...	...
Engineering drafting technician	2,065	...	2,051	...	2,276
Hospital attendant	1,376	1,412	1,375	1,367	...
Staff nurse	2,999	2,842	3,008	2,821	3,013
HOURLY RATES					
Housekeeper	7.856	8.228	7.826	7.967	7.620
Cook, general	9.603	10.683	9.334	11.058	...
Waiter/waitress	4.409	4.699	4.283	4.792	4.380
Laborer (light)	7.785	7.808	7.834	7.808	5.891
Carpenter (maintenance)	12.007	11.419	12.426	12.169	9.520
Electrician (maintenance) ..	14.300	10.473	15.189	12.974	15.620
Automotive mechanic	12.486	10.925	13.567	11.862	11.361
Truck driver (1.5-5 tons) ..	10.397	...	10.816	9.350	7.705

Source: Hawaii Employers Council, Pay Rates in Hawaii (Special Publication No. 198, September 1990).

Table 370.-- MONTHLY AND HOURLY WAGE RATES FOR SPECIFIED JOB TITLES: 1989

[In dollars. Data are shown for only a few of the more than 6,000 job titles listed in the source, primarily to suggest the type of information and occupational detail available there]

Job title	Data source	Pay period	Wage range: Low	Wage range: High
Accountant	Private	Monthly	1,000	2,686
Cannery/warehouse worker	Private	Hourly	5.25	6.80
Clerk, data entry	Private	Hourly	8.14	12.29
Engineer, civil	Local govt.	Monthly	1,818	5,533
Host/hostess	Private	Hourly	3.85	8.20
Laborer, general	Private	Hourly	3.85	15.45
Nurse, licensed practical	State govt.	Monthly	1,448	2,159
Police officer	Local govt.	Monthly	1,933	2,996
Professor	State govt.	Monthly	3,008	5,634
Stenographer	Private	Monthly	1,141	1,948

Source: Hawaii State Department of Labor and Industrial Relations, Selected Wage Information for Hawaii 1989 (November 1989).

Table 371.-- CASH COMPENSATION PAID TO EXECUTIVES OF MAJOR CORPORATIONS AND LABOR UNION LEADERS: 1989

[$1,000]

Category	Total	Less than 100	100 to 249	250 to 499	500 to 999	1,000 or more	Highest
Corporate executives ...	30	-	6	16	6	2	1,473
Union leaders	16	12	4	-	-	-	163

Source: Sunday Star-Bulletin & Advertiser, June 3, 1990, pp. B4 and B8, and July 8, 1990, pp. B4 and B6.

Table 372.-- WEEKLY HOURS OF WORK, FOR CIVILIANS AT WORK: ANNUAL AVERAGES, 1980 TO 1989

Year	All civilians at work	Full-time schedules 1/	Year	All civilians at work	Full-time schedules 1/
1980 2/	37.0	43.0	1985	38.2	44.4
1981	36.7	43.0	1986	38.3	44.3
1982	37.4	43.1	1987	37.6	44.1
1983	37.9	43.2	1988	39.0	44.6
1984	37.8	43.5	1989	39.4	46.0

1/ Refers to persons who worked 35 hours or more during the survey week.

2/ Data for 1980 limited to nonagricultural wage and salary workers. Data on hours of work not available from this survey before 1980.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment (annual).

Table 373.-- WEEKLY HOURS OF WORK, FOR CIVILIAN WORKERS: ANNUAL AVERAGES; 1989

Hours of work	Civilian workers (1,000)	Age, sex, or race	Average hours
Total at work	484	Total at work	39.4
		Full-time schedules 1/ .	46.0
1 to 14 hours	19		
15 to 29 hours	54	Men	41.6
30 to 34 hours	32	Women	37.1
35 to 39 hours	21		
40 hours	240	Both sexes, 15 to 19 years	26.7
41 to 48 hours	33		
49 hours and over	86	White	39.6

1/ Refers to persons who worked 35 hours or more during the survey week.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1989 (Bulletin 2361, May 1990), pp. 71-74.

Table 374.-- INTERSTATE MOVEMENT OF JOB-SEEKERS: 1984 TO 1989

Type of job-seeker	1984	1985	1986	1987	1988	1989
Island workers on Mainland 1/ ..	4,123	4,039	3,664	3,805	3,942	3,961
Mainland workers in Hawaii 2/ ..	4,219	3,993	3,932	3,161	2,974	2,679
Ratio 3/	102	99	107	83	75	68

1/ Interstate liable initial claims, excluding UCFE and UCX. Covers Hawaii workers seeking work and filing for benefits on Mainland. Includes Federal civilian employees and ex-servicemen.

2/ Interstate agent initial claims (UI), excluding UCFE and UCX. Covers Mainland workers filing claims for unemployment insurance and registered for work with the Hawaii State Employment Service.

3/ Interstate agent initial claims per 100 interstate liable initial claims. Ratios under 100 suggest a net out-migration of workers.

Source: Hawaii State Department of Labor and Industrial Relations, 1990 State of Hawaii Unemployment Insurance Fact Book, 1970 to the Present, Hawaii (June 1990), p. 15.

Table 375.-- WORK DISABILITY STATUS OF NONINSTITUTIONAL CIVILIANS 18 TO 64 YEARS OLD, BY SEX: 1980

[For selected characteristics of these groups, see Data Book 1987, table 394]

Work disability	Total	Male	Female
Total, 18 to 64 years	552,928	259,580	293,348
With no work disability	517,083	240,362	276,721
With a work disability	35,845	19,218	16,627
Not prevented from working	19,589	11,422	8,167
Prevented from working	16,256	7,796	8,460

Source: U.S. Bureau of the Census, 1980 Census of Population, Selected Characteristics of Persons With a Work Disability by State: 1980, PC80-S1-20 (November 1985), pp. 58-59.

Table 376.-- RECORDABLE OCCUPATIONAL INJURIES AND ILLNESSES OF NONGOVERNMENTAL WORKERS: 1987

[Data exclude agricultural employers with fewer than 11 employees]

Subject	Total	Injuries	Illnesses
Recordable cases	28,881	28,345	536
Per 100 full-time workers	9.8	9.6	0.2
Lost workday cases	15,601	15,395	206
Lost workdays	259,686	255,938	3,748
Per lost workday case	17	17	18
Nonfatal cases without lost workdays.	13,269	12,942	327
Number of recordable cases:			
Agriculture, forestry, fishing.....	1,383	1,338	45
Mining	27	24	3
Construction	3,889	3,827	62
Manufacturing	2,434	2,403	31
Transportation, public utilities ..	3,380	3,348	32
Wholesale and retail trade	8,704	8,586	118
Finance, insurance, real estate ...	891	838	53
Services	8,173	7,981	192
Incidence per 100 full-time workers .			
Agriculture, forestry, fishing	15.6	15.1	0.5
Mining	6.1	5.4	0.7
Construction	21.8	21.4	0.3
Manufacturing	12.0	11.9	0.2
Transportation, public utilities ..	10.6	10.5	0.1
Wholesale and retail trade	9.4	9.3	0.1
Finance, insurance, real estate ...	3.0	2.8	0.2
Services	8.7	8.5	0.2

Source: Hawaii State Department of Labor and Industrial Relations, 1987 Occupational Injuries and Illnesses Survey, State of Hawaii, p. 4.

Table 377.-- WORK INJURIES, DEATHS, TIME LOST, AND COMPENSATION COSTS: 1983 TO 1988

Year	Reported cases	Reported deaths	Time lost (compensated days)	Compensation costs ($1,000)
1983 ...	39,013	48	1,141,746	103,338
1984 ...	38,755	35	1,307,011	122,454
1985 ...	37,940	49	1,262,513	136,837
1986 ...	39,390	47	1,067,462	127,367
1987 ...	43,108	45	1,266,460	159,196
1988 ...	50,101	46	1,445,052	178,930

Source: Hawaii State Department of Labor and Industrial Relations, Work Injury Statistics (annual).

Table 378.-- LABOR UNIONS AND EMPLOYEE ASSOCIATIONS: 1990

Subject	Total	AFL-CIO affiliated	Independent
Unions and associations ...	71	59	12
Membership 1/	161,052	142,518	18,534

1/ Data exclude 5 unions and associations not reporting membership.

Source: Hawaii State Department of Labor and Industrial Relations, Directory of Labor Organizations & Affiliates, 1990.

Table 379.-- COLLECTIVE BARGAINING AGREEMENTS: 1985 TO 1990

[Covers collective bargaining agreements subject to wage negotiations]

Year	Number of agreements	Workers covered		Duration over 2 years (percent)	
		Total	Per agreement	Agreements	Workers
1985	350	58,450	167	74.3	11.7
1986	138	13,550	98	60.2	44.1
1987	1,375	80,400	58	96.4	42.9
1988	433	16,290	38	88.7	52.5
1989	104	50,950	490	76.9	14.9
1990	194	24,300	125	89.2	95.6

Source: Helene S. Tanimoto, Duration of Collective Bargaining Agreements in Hawaii, 1990 (University of Hawaii at Manoa, Industrial Relations Center, Occasional Publication No. 166, December 1989).

Table 380.-- STATE AND COUNTY EMPLOYEES IN COLLECTIVE BARGAINING UNITS BY EMPLOYING JURISDICTION: 1987 TO 1989

[Unless otherwise specified, as of December 31]

Employing jurisdiction	1987	1988	1989
Total	44,275	45,172	46,426
State of Hawaii	19,470	19,690	20,680
City and County of Honolulu	1/ 7,736	7,822	7,908
County of Hawaii	1,407	1,434	1,482
County of Maui	1,053	1,106	1,205
County of Kauai	727	640	649
Dept. of Education	10,128	10,592	10,440
University of Hawaii	3,754	3,888	4,062

1/ As of February 29, 1988.

Source: Hawaii Labor Relations Board, HLRB Information Bulletin, No. 27, April 11, 1990, and earlier issues.

Table 381.-- WORK STOPPAGES: 1984 TO 1989

[Data exclude stoppages lasting less than one full shift (8 hours) and stoppages affecting fewer than 6 workers. Data are limited to stoppages begun or in progress during the week containing the 12th of each month]

Year	Number of stoppages 1/	Workers involved 1/	Man-days lost 2/
1984	6	2,063	123,486
1985	9	1,990	32,257
1986	6	1,266	49,533
1987	4	99	14,392
1988	6	410	25,057
1989	2	48	3,046

1/ Stoppages carrying over from previous year are counted in both years.

2/ Partly estimated.

Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, records.

Table 382.-- WORK STOPPAGES INVOLVING 1,000 OR MORE WORKERS: 1984 TO 1989

Year	Number of stoppages begun in year	Workers involved 1/	Man-days idle during year	Percent of estimated nonagricultural working time
1984	1	1,000	70,000	0.01
1985	1	1,000	11,000	0.01
1986	-	-	-	0
1987	-	-	-	0
1988	-	-	-	0
1989	-	-	-	0

1/ Workers counted more than once if involved in more than one stoppage during year.

Source: U.S. Department of Labor, Bureau of Labor Statistics, records.

Section 13

INCOME, EXPENDITURES, AND WEALTH

This section presents statistics on two different aspects of income and expenditures, one relating to the state income and product system and the other to the distribution of income to families, households and individuals. Specifically, information is given on gross state product, income by industry, personal, family and household income, poverty, personal wealth, and family expenditures. Data on wage rates, salaries, and earnings appear in Sections 3, 9, 12, and 22; on industrial payrolls, in Sections 12, 15, and 20 through 23; on the family income of visitors, in Section 7; on retirement payments and public assistance, in Sections 10 and 11; on taxable income, in Section 9.

Gross state product in 1989 was about $24 billion. The major sources of outside income to Hawaii in 1989 were defense expenditures ($2.0 billion), pineapple production ($242 million), sugar production ($322 million), and visitor expenditures ($10.9 billion). Personal income in 1989 was $20.4 billion, compared with $9.0 billion only ten years earlier, and per capita personal income was $18,500, almost twice the 1979 level. The per capita figure for Hawaii was 5.0 percent above the national average, reflecting in part the Islands' higher cost of living. The median annual income of families, based on data for 1988, was $39,600; for unrelated individuals, the median was $14,400. The official poverty threshold for a 4-person family in Hawaii was set in February 1990 at $14,610. In 1988, 8.4 percent of Island families and 21.9 percent of unrelated individuals were below the U.S. poverty level. The most recent family expenditure survey, taken in 1986 and 1987, reported that the largest items in the family budget on Oahu were housing (accounting for 30.5 percent of total spending), food (17.0 percent), and transportation (15.0 percent). Top wealthholders in 1986 included 11,000 persons with assets of $500,000 or more.

The chief sources of data shown in this section are the U.S. Bureau of Economic Analysis, U.S. Bureau of the Census, U.S. Bureau of Labor Statistics, U.S. Department of Health and Human Services, U.S. Department of Housing and Urban Development, Internal Revenue Service, Hawaii Agricultural Statistics Service, Hawaii State Department of Business, Economic Development & Tourism, and Hawaii Visitors Bureau. Sections 6 and 7 of Historical Statistics of Hawaii present data for earlier years. Comparable data for the country as a whole are given in Statistical Abstract of the United States: 1990, Section 14.

Table 383.-- DIRECT INCOME FROM MAJOR EXPORT INDUSTRIES: 1970 TO 1989

[In millions of dollars]

Year	Total for four major industries	Value of production		Defense expendi-tures 2/	Visitor expendi-tures 3/
		Raw sugar and molasses 1/	Fresh and processed pineapple		
1970 ...	1,561	187.8	138.6	639.4	595
1971 ...	1,758	202.9	141.4	708.8	705
1972 ...	1,914	184.7	145.4	744.2	840
1973 ...	2,226	222.2	142.4	840.9	1,020
1974 ...	2,927	676.6	127.1	897.9	1,225
1975 ...	2,846	366.1	136.7	982.8	1,360
1976 ...	3,076	257.0	144.5	1,034.2	1,640
1977 ...	3,320	226.8	161.6	1,086.6	1,845
1978 ...	3,750	285.2	162.8	1,155.5	2,146
1979 ...	4,311	345.7	206.4	1,221.8	2,537
1980 ...	5,013	594.1	226.5	1,317.4	2,875
1981 ...	5,195	327.9	217.6	1,449.3	3,200
1982 ...	5,951	351.5	206.0	1,693.4	3,700
1983 ...	6,451	410.2	219.0	1,848.2	3,974
1984 ...	7,092	393.0	249.6	1,867.2	4,582
1985 ...	7,413	340.8	222.5	1,965.4	4,884
1986 ...	7,885	361.9	238.4	1,784.9	5,550
1987 ...	9,043	335.9	251.4	1,857.0	6,600
1988 ...	11,663	324.0	247.0	1,892.4	9,200
1989 ...	13,509	322.0	241.9	2,038.2	10,907

1/ Excludes government sugar support payments.

2/ Does not include military retired pay, Hawaii National Guard expenditures, or U.S. Army Corps of Engineers contracts. Data for 1986 and 1987 are partly estimated. 1989 is preliminary.

3/ Direct visitor expenditures in Hawaii, exclusive of transpacific transportation and expenditures of carriers and crews.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records; data supplied to DBED by armed forces; Hawaii Visitors Bureau, "Neighbor Island Statistics," tabular releases dated May 1989 and 1990.

Table 384.-- GROSS STATE PRODUCT AND PER CAPITA GROSS STATE PRODUCT: 1958 TO 1989

Year	Gross state product		Per capita gross state product	
	Millions of current dollars	Millions of 1982 dollars	Current dollars	1982 dollars
1958	1,415.0	4,152.3	2,337	6,859
1959	1,572.5	4,632.4	2,528	7,447
1960	1,805.1	5,248.1	2,814	8,181
1961	1,886.5	5,250.0	2,864	7,970
1962	1,965.8	5,471.0	2,876	8,004
1963	2,101.8	5,606.2	3,081	8,217
1964	2,301.3	6,167.5	3,288	8,813
1965	2,530.4	6,714.3	3,595	9,540
1966	2,771.4	7,083.5	3,902	9,972
1967	2,990.0	7,329.4	4,138	10,144
1968	3,344.5	7,932.5	4,554	10,800
1969	3,952.3	8,905.6	5,268	11,871
1970	4,414.0	9,324.6	5,720	12,084
1971	4,773.8	9,806.5	5,955	12,233
1972	5,305.4	10,464.5	6,405	12,633
1973	6,009.3	10,982.4	7,057	12,896
1974	6,901.7	10,948.5	7,951	12,614
1975	7,411.3	11,596.6	8,363	13,086
1976	7,933.4	11,746.4	8,774	12,991
1977	8,597.4	12,103.3	9,363	13,181
1978	9,627.6	12,482.9	10,335	13,400
1979	10,906.4	12,972.1	11,441	13,608
1980	12,225.7	13,690.5	12,619	14,131
1981	13,078.3	14,022.5	13,343	14,306
1982	13,691.0	13,691.0	13,725	13,725
1983	14,811.8	14,210.0	14,541	13,950
1984	15,826.5	14,637.0	15,276	14,128
1985	16,813.9	15,046.4	16,021	14,337
1986	18,036.2	15,738.4	16,956	14,796
1987	19,713.1	16,460.9	18,219	15,221
1988	21,587.6	17,332.7	19,693	15,812
1989 (p) ...	23,959.5	18,321.2	21,544	16,474

Source: Follows table 390.

Table 385.-- EXPENDITURES ON GROSS STATE PRODUCT: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Gross state product	18,036.2	19,713.1	21,587.6
Personal consumption expenditures 1/	11,400.6	12,401.8	13,527.2
Goods	8,211.5	8,934.8	9,747.8
Durables	2,360.4	2,577.0	2,820.4
Non-durables	5,851.1	6,357.8	6,927.4
Services	3,189.1	3,467.0	3,779.4
Gross private domestic investment	2,090.4	2,538.0	3,054.0
Fixed investment	2,024.5	2,466.3	2,975.8
Non-residential	1,410.8	1,668.2	1,975.8
Structures	705.4	811.2	928.9
Producers' durable equipment	705.4	857.0	1,046.9
Residential	613.7	798.1	1,000.0
Change in inventories	65.9	71.7	78.2
Government purchases of goods and services	5,851.3	6,161.4	6,524.3
State and local	2,717.7	2,962.5	3,245.1
Compensation of employees	1,500.2	1,631.3	1,778.7
Purchases from business	1,217.5	1,331.2	1,466.4
Construction	297.3	338.9	379.9
Other current equipment	920.2	992.3	1,086.5
Federal	3,133.6	3,198.9	3,279.2
Defense	2,866.3	2,923.6	2,987.9
Non-defense	267.3	275.3	291.3
Net exports	-1,452.4	-1,385.3	-1,638.2
Exports	9,265.0	10,603.5	12,188.3
Commodities (Merchandise)	1,389.8	1,445.4	1,503.2
Services and income from investments	2,353.2	2,533.1	2,745.1
Visitor and crew expenditures	5,522.0	6,625.0	7,940.0
Less: Imports	10,717.4	11,988.8	13,826.5
Commodities (Merchandise)	7,718.5	8,604.6	9,908.0
Services and income from investments	2,669.3	3,023.8	3,519.6
Out-of-state expenditures by Hawaii residents	329.6	360.4	398.9
Discrepancy and omissions	146.3	-2.8	120.3

1/ Purchases by Hawaii residents.
Source follows table 390.

Table 386.-- GROSS STATE (DOMESTIC) PRODUCT, BY INDUSTRY: 1963 TO 1986

[Money amounts in millions of dollars]

Item	1963	1967	1972	1977	1982
Total gross state (domestic) product	2,170	3,066	5,390	9,037	14,259
Farms	139	132	160	205	325
Agric. services, forestry, fisheries	7	10	18	32	49
Mining	1	-	5	-	2
Construction	143	214	416	566	892
Manufacturing	202	231	328	562	713
Transportation and public utilities	190	308	532	922	1,389
Wholesale trade	161	212	319	447	634
Retail trade	207	320	555	1,035	1,608
Finance, insurance, and real estate	294	459	784	1,460	2,388
Services	240	383	774	1,444	2,574
Federal civilian government	202	288	423	590	932
Federal military	224	257	628	964	1,532
State and local government	161	252	449	810	1,220

Item	1983	1984	1985	1986	
				Number	Pct.
Total gross state (domestic) product	15,533	16,724	17,994	19,320	100.0
Farms	336	355	377	386	2.0
Agric. services, forestry, fisheries	57	60	62	68	0.4
Mining	4	3	3	2	(Z)
Construction	987	948	1,036	1,183	6.1
Manufacturing	736	866	944	1,000	5.2
Transportation and public utilities	1,517	1,682	1,783	1,911	9.9
Wholesale trade	661	748	803	841	4.4
Retail trade	1,739	1,891	2,036	2,151	11.1
Finance, insurance, and real estate	2,670	2,775	3,022	3,398	17.6
Services	2,930	3,248	3,509	3,823	19.8
Federal civilian government	1,015	1,110	1,184	1,182	6.1
Federal military	1,588	1,689	1,813	1,848	9.6
State and local government	1,292	1,349	1,423	1,526	7.9

Z Less than 0.05 percent.

Source: U.S. Department of Commerce, "Gross State Product, By Industry: 1963-86," Survey of Current Business, May 1988.

Table 387.-- CHARGES AGAINST GROSS STATE PRODUCT: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Charges against gross state product	18,036.2	19,713.1	21,587.6
Compensation of employees	11,754.5	12,852.5	14,079.8
Wages and salaries	9,781.5	10,673.0	11,706.0
Supplements to wages and salaries	1,973.0	2,179.5	2,373.8
Employers' contributions for social ins.	1,131.0	1,237.5	1,357.8
State programs	202.9	230.8	259.0
Federal programs	928.1	1,006.7	1,098.8
Other labor income	842.0	942.0	1,016.0
Proprietors' income	1,219.0	1,303.0	1,404.0
Rental income	89.[illegible]	92.7	102.3
Corporate profits before tax	690.9	815.7	906.6
Profit tax	201.2	242.3	263.1
State	46.2	67.3	63.1
Federal	155.0	175.0	200.0
Profits after tax	489.7	573.4	643.5
Dividends	345.0	383.2	410.3
Undistributed profits	144.7	190.2	233.2
Net interest	1,565.6	1,624.2	1,792.8
State income	15,319.4	16,688.1	18,285.5
Business transfer payments	98.6	109.6	122.6
To persons	71.6	81.3	92.8
To non-profit institutions	27.0	28.3	29.8
Indirect business tax and non-tax, state and local	1,434.4	1,671.1	1,881.7
Subsidies less surplus of state and local government enterprises	-20.8	-22.2	-23.5
Indirect tax and non-tax, Federal	80.1	83.4	87.2
Subsidies less surplus of Federal government enterprises	-88.1	-95.0	-101.7
Charges against net state product	17,041.4	18,669.4	20,502.0
Capital consumption allowances	994.8	1,032.7	1,085.4

Source follows table 390.

Table 388.-- PERSONAL CONSUMPTION EXPENDITURES OF HAWAII'S RESIDENT POPULATION: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Personal consumption expenditures	11,400.6	12,401.8	13,527.1
Food, alcoholic beverages and tobacco	2,622.1	2,864.8	3,124.8
Clothing, accessories and jewelry	524.4	570.5	622.2
Personal care	114.0	124.0	135.3
Housing	1,960.9	2,145.5	2,340.2
Household operation	1,219.9	1,339.4	1,460.9
Medical care	1,209.5	1,338.7	1,440.7
Personal business	1,014.7	1,041.8	1,136.3
Transportation	1,288.3	1,413.8	1,555.6
Recreation	832.2	905.3	987.5
Private education and research	136.8	136.4	148.8
Religious and welfare activities	148.2	161.2	175.9
Out-of-State expenditures of residents	329.6	360.4	398.9

Source follows table 390.

Table 389.-- HAWAII'S EXPORTS AND IMPORTS OF GOODS AND SERVICES: 1986 TO 1988

[In millions of dollars]

Classification	1986	1987	1988
Hawaii's exports of goods and services 1/	9,265.0	10,603.5	12,188.3
Merchandise exports	1,389.8	1,445.4	1,503.2
Primary	514.1	491.7	496.7
Sugar and molasses	317.7	296.1	285.1
Pineapple	196.4	195.6	211.6
Secondary	162.8	170.4	181.5
Garments	50.0	45.0	47.2
Canned tuna	10.1	-	-
Flowers	27.0	30.1	32.8
Papaya	7.9	8.3	9.8
Macadamia nuts and coffee	22.2	22.6	26.0
All other	45.6	64.4	65.7
Miscellaneous	712.9	783.2	825.0
Other processed foods and feeds	25.0	26.3	28.1
Fuels and petroleum products	164.0	178.3	191.6
All other	523.9	578.7	605.3
Services and income from investments	2,353.2	2,533.1	2,745.1
Visitors and crew expenditures	5,522.0	6,625.0	7,940.0
Hawaii's imports of goods and services	10,717.4	11,988.8	13,826.5
Merchandise imports	7,718.5	8,604.6	9,908.0
Domestic	6,120.8	6,685.8	7,510.3
Domestic, waterborne	5,819.8	6,376.0	7,173.4
Domestic, airborne	301.0	309.8	336.9
Foreign, total	1,597.7	1,918.8	2,397.7
Services and income from investments	2,669.3	3,023.8	3,519.6
Out-of-State expenditures by Hawaii residents	329.6	360.4	398.9

1/ Not available separately for foreign and domestic exports.
Source follows table 390.

Table 390.-- SUMMARY OF GOVERNMENT ACCOUNTS, STATE AND LOCAL, AND FEDERAL: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Total revenues, State and local	3,245.9	3,703.4	4,167.9
State and local tax and non-tax	2,708.5	3,153.1	3,570.3
Personal tax and non-tax	931.8	1,082.7	1,249.4
Corporate profits tax	46.2	67.3	63.1
Indirect business tax and non-tax	1,434.4	1,671.1	1,881.7
Contributions to social insurance programs	296.1	332.0	376.1
Employer	202.9	230.8	259.0
Personal	93.2	101.2	117.1
Federal grants-in-aid	537.4	550.3	597.6
Total expenditures, State and local	2,873.0	3,179.5	3,469.8
Purchases of goods and services	2,717.7	2,962.5	3,245.1
Compensation of employees	1,500.2	1,631.3	1,778.7
Purchases from business	1,217.5	1,331.2	1,466.4
Transfer payments to persons	308.7	326.2	349.3
Net interest paid	-181.3	-107.4	-98.3
Subsidies less current surplus of gov. ent.	-20.8	-22.2	-23.5
Surplus or deficit (-), State & local	421.6	544.2	695.3
Total revenues, Federal	5,384.9	5,559.0	5,813.2
Federal tax and non-tax revenues	2,352.5	2,599.0	2,928.2
Personal tax and non-tax	565.5	657.1	758.3
Corporate profits tax	155.0	175.0	200.0
Indirect business tax and non-tax	80.1	83.4	87.2
Contributions for social insurance programs	1,551.9	1,683.5	1,882.7
Employer	928.1	1,006.7	1,098.8
Personal	623.8	676.8	783.9
Transfers from Federal gov. in Washington, D.C.	2,994.7	2,898.6	2,865.7
Total expenditures, Federal	5,384.9	5,559.0	5,813.2
Purchases of goods and services	3,133.6	3,198.9	3,279.2
Defense	2,866.3	2,923.6	2,987.9
Non-defense	267.3	275.3	291.3
Transfer payments to persons	1,787.6	1,890.1	2,023.1
Grants-in-aid to State and local government	537.4	550.3	597.6
Net interest paid (to persons)	14.3	14.7	15.0
Subsidies less current surplus of gov. ent.	-88.1	-95.0	-101.7

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958 to 1985; Summary Estimates: 1986, 1987, and 1988 (1989), as revised.

Table 391.-- TOTAL AND PER CAPITA PERSONAL INCOME AND DISPOSABLE PERSONAL INCOME: 1960 TO 1989

[Revised from Data Book 1989, table 384]

Year	Personal income (millions of dollars)		Per capita personal income (dollars)		Per capita personal income as percent of U.S. average	
	Total	Disposable	Total	Disposable	Total	Disposable
1960 ...	1,466	1,243	2,350	1,992	104	101
1961 ...	1,584	1,337	2,464	2,080	107	103
1962 ...	1,695	1,454	2,595	2,226	107	105
1963 ...	1,806	1,553	2,692	2,315	107	106
1964 ...	1,962	1,712	2,894	2,525	109	108
1965 ...	2,153	1,888	3,085	2,705	109	108
1966 ...	2,359	2,039	3,385	2,926	111	110
1967 ...	2,565	2,216	3,624	3,129	112	111
1968 ...	2,874	2,453	3,998	3,412	114	112
1969 ...	3,277	2,747	4,411	3,698	116	114
1970 ...	3,772	3,191	4,944	4,182	122	120
1971 ...	4,060	3,478	5,129	4,394	119	118
1972 ...	4,473	3,780	5,468	4,620	117	116
1973 ...	4,967	4,204	5,901	4,993	114	112
1974 ...	5,702	4,861	6,645	5,665	118	117
1975 ...	6,159	5,374	7,038	6,141	116	116
1976 ...	6,670	5,783	7,474	6,480	112	113
1977 ...	7,210	6,213	7,873	6,784	108	108
1978 ...	8,043	6,898	8,660	7,427	106	107
1979 ...	9,031	7,711	9,506	8,116	105	106
1980 ...	10,279	8,776	10,617	9,065	107	108
1981 ...	11,051	9,418	11,273	9,608	103	104
1982 ...	11,732	10,213	11,759	10,237	102	105
1983 ...	12,875	11,100	12,641	10,898	104	105
1984 ...	13,628	11,886	13,157	11,475	100	102
1985 ...	14,589	12,606	13,900	12,011	100	101
1986 ...	15,607	13,527	14,673	12,717	101	102
1987 ...	16,832	14,365	15,540	13,276	101	101
1988 ...	18,388	15,669	16,840	14,294	102	101
1989 ...	20,358	17,331	18,472	15,584	105	104

Source: U.S. Department of Commerce, Bureau of Economic Analysis, printouts dated April 1990 and August 1990.

Table 392.-- PERSONAL INCOME BY MAJOR SOURCES: 1984 TO 1989

[In millions of dollars. Revised from Data Book 1989, table 387]

Item	1984	1985	1986	1987	1988	1989
Labor and proprietors income						
By type:						
Wage and salary disbursements .	8,584	9,184	9,779	10,691	11,755	13,004
Other labor income	752	759	852	908	985	1,115
Proprietors income	937	1,062	1,203	1,272	1,445	1,542
Farm	115	108	154	95	100	66
Nonfarm	822	945	1,049	1,176	1,346	1,476
By industry:						
Farm	267	258	306	254	259	230
Nonfarm	10,005	10,746	11,528	12,617	13,927	15,431
Private	6,780	7,314	8,006	8,950	10,034	11,291
Government and government enterprises	3,225	3,432	3,522	3,667	3,893	4,140
Federal, civilian	919	967	950	992	1,042	1,088
Federal military	1,175	1,274	1,295	1,326	1,352	1,394
State and local	1,131	1,192	1,278	1,349	1,499	1,657
Derivation of personal income						
Labor and proprietors income	10,272	11,005	11,834	12,871	14,186	15,661
Less: Personal contributions for social insurance	626	678	728	766	873	995
Net labor and proprietors income	9,646	10,327	11,106	12,105	13,313	14,666
Plus: Dividends, interest, and rent	2,049	2,189	2,308	2,414	2,683	3,217
Plus: Transfer payments	1,933	2,073	2,194	2,296	2,464	2,660
Personal income	13,628	14,589	15,608	16,815	18,459	20,543

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1989 and August 1990.

Table 393.-- PERSONAL INCOME, TOTAL AND PER CAPITA, BY COUNTIES: 1978 TO 1988

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui and Kalawao
TOTAL (MIL. DOL.)						
1978	8,043.1	6,618.5	1,424.6	636.0	273.2	515.3
1979	9,030.9	7,395.5	1,635.4	724.4	313.0	598.0
1980	10,279.2	8,293.1	1,986.2	901.3	374.4	710.5
1981	11,051.4	9,039.9	2,011.4	895.8	378.3	737.3
1982	11,731.7	9,570.6	2,161.1	948.9	406.6	805.7
1983	12,875.3	10,396.3	2,479.0	1,080.7	462.7	935.5
1984	13,627.9	11,063.9	2,564.0	1,117.3	471.7	975.1
1985	14,588.7	11,815.8	2,772.8	1,188.4	515.8	1,068.6
1986	15,607.4	12,537.0	3,070.4	1,316.1	566.5	1,187.9
1987	16,832.2	13,515.1	3,317.2	1,420.4	616.4	1,280.4
1988	18,388.0	14,706.2	3,681.8	1,565.9	694.8	1,421.1
PER CAPITA (DOLLARS)						
1978	8,660	8,938	7,565	7,425	7,444	7,814
1979	9,506	9,816	8,318	8,133	8,234	8,600
1980	10,617	10,854	9,729	9,682	9,499	9,916
1981	11,275	11,765	9,496	9,232	9,308	9,944
1982	11,760	12,292	9,869	9,472	9,703	10,477
1983	12,640	13,107	10,995	10,526	10,764	11,724
1984	13,154	13,805	10,930	10,438	10,691	11,688
1985	13,874	14,568	11,535	10,851	11,365	12,502
1986	14,674	15,306	12,557	11,830	12,254	13,647
1987	15,557	16,303	13,114	12,378	12,861	14,186
1988	16,743	17,540	14,173	13,331	14,092	15,279

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated May 1990.

Table 394.-- PER CAPITA PERSONAL INCOME IN CURRENT AND CONSTANT DOLLARS: 1979 AND 1989

Subject	Value	Subject	Value
Per capita personal income: 1/		Percent increase, 1979-89: 3/	
1979	9,506	Current dollars	94.3
1989	18,472	Constant dollars	12.2
In 1979 dollars 2/	10,664		
		Rank: 4/	
Percent of U.S. average:		1979	13
1979	105.2	1989	14
1989	105.0		

1/ In dollars. U.S. values were $9,036 in 1979 and $17,596 in 1989 ($10,302 in 1979 dollars).

2/ Based on Honolulu CPI-U (74.3 in 1979 and 128.7 in 1989).

3/ U.S. increases were 94.7 percent in current dollars and 14.0 percent in constant dollars).

4/ Among 50 States and D.C.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1990. Constant dollar values calculated by DBED.

Table 395.-- UNREPORTED OR ILLEGAL INCOME: 1981

[In millions of dollars. Data are rough estimates of income from the "underground economy," based in part on estimated national ratios of unreported to reported income. For greater detail, see source or Data Book 1984, table 284]

Source	Amount
All sources	1,160.3
Percent of reported personal income	10.7
Income hidden to avoid taxes	569.1
Income from illegal transfers	56.0
Income from production and distribution of illegal goods ...	445.6
Income from illegal services	58.0
Other illegal income	31.6

Source: Linda Kephart, "Business booms 'off-the-books,'" Hawaii Business, March 1984, p. 69.

Table 396.-- INCOME PROJECTIONS: 1985 TO 2010

[Constant 1982 dollars. Series M-K projections, developed by DBED]

Year	Gross State product (billions)	Personal income (billions)	Per capita personal income (dollars)
1985	15.1	13.0	12,400
1990	18.3	15.5	13,600
1995	21.7	18.0	14,700
2000	24.7	20.1	15,600
2005	27.5	21.9	16,200
2010	30.4	24.1	16,800

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 9 and underlying data.

Table 397.-- PERSONAL INCOME PROJECTIONS, TOTAL AND PER CAPITA, BY COUNTIES: 1990, 2000, AND 2010

[Series M-K projections developed by DBED]

Subject	Total personal income (millions of 1982 dollars)			Per capita personal income (1982 dollars)		
	1990	2000	2010	1990	2000	2010
State total	15,509.1	20,094.0	24,122.1	13,600	15,600	16,800
Honolulu	12,355.6	15,408.1	17,785.6	14,300	16,500	17,800
Hawaii	1,327.6	1,964.9	2,811.8	10,700	12,300	13,600
Kauai	629.7	945.3	1,276.9	11,600	13,900	15,100
Maui	1,196.3	1,775.7	2,247.7	12,400	14,300	15,500

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), pp. 9-13.

Table 398.-- PER CAPITA PERSONAL INCOME, MEDIAN FAMILY INCOME, AND AVERAGE WAGE AND SALARY EARNINGS, IN CURRENT AND CONSTANT DOLLARS: 1939 TO 1989

[Constant dollar amounts based on Honolulu consumer price index for all urban consumers (CPI-U)]

Year	Per capita personal income 1/		Median family cash income 2/		Average wage or salary 3/		Honolulu CPI-U (1982-84 =100) 4/
	Current dollars	1982-84 dollars	Current dollars	1982-84 dollars	Current dollars	1982-84 dollars	
1939 ...	525	3,596	(NA)	(NA)	970	6,644	14.6
1949 ...	1,354	5,373	3,568	14,159	2,605	10,337	25.2
1959 ...	2,116	6,938	6,366	20,872	3,745	12,279	30.5
1969 ...	4,411	11,195	11,664	29,604	6,431	16,322	39.4
1979 ...	9,506	12,794	22,750	30,619	11,709	15,759	74.3
1988 ...	16,775	13,784	39,609	32,546	19,480	16,007	121.7
1989 ...	18,306	14,224	(NA)	(NA)	(NA)	(NA)	128.7

NA Not available.

1/ 1939 and 1949 from Robert C. Schmitt, Historical Statistics of Hawaii (1977), p. 167; 1959-1989 from U.S. Bureau of Economic Analysis, printout dated April 1990 and filed in the Hawaii State Data Center.

2/ U.S. Bureau of the Census, decennial census data for 1949-1979 and Current Population Survey tabulations for 1988, cited in Data Book 1989, table 391, as updated.

3/ Data limited to private nonagricultural wage and salary workers. 1939-1969 reported in Historical Statistics of Hawaii, p. 127; 1979 in Data Book 1985, table 343; 1988 in Data Book 1989, table 351.

4/ Honolulu consumer price index for all urban consumers, reported in Data Book 1989, table 402. The 1939 index is estimated from the 1940 Honolulu index and the 1939-1940 percent change in the Mainland index.

Sources cited in footnotes.

Table 399.-- MEDIAN INCOME OF HOUSEHOLDS, FAMILIES, UNRELATED INDIVIDUALS, AND PERSONS: 1949 TO 1988

[In dollars. Based on censuses or surveys made in March or April of following year. Data for 1980-1988 are taken from small samples (averaging 565 households annually) and thus are subject to considerable sampling variation]

Year	Households	Families	Unrelated individuals with income 1/	Persons with income 1/	
				Male	Female
1949	(NA)	3,568	1,583	2,340	1,247
1959	(NA)	6,366	1,998	3,753	1,796
1969	10,675	11,664	2,981	6,528	3,222
1975	15,991	17,770	6,180	9,489	4,082
1979	20,473	22,750	7,097	11,505	6,581
1980	21,666	24,813	8,663	13,533	6,917
1981	22,434	27,499	10,073	13,635	7,069
1982	23,582	27,840	11,406	13,582	8,133
1983	26,805	29,742	12,735	14,903	7,941
1984	28,877	32,831	12,873	16,147	8,548
1985	28,961	32,611	15,357	15,865	9,987
1986	29,003	34,665	14,906	18,889	9,998
1987	34,398	39,038	14,876	19,872	10,765
1988 2/	33,024	39,609	14,376	18,375	8,983

NA Not available.

1/ 14 years old and over through 1975, and 15 years old and over thereafter. Data for 1975 and 1980-1988 exclude persons in military group quarters. Data for 1980-85 revised.

2/ Revision in income imputation procedures.

Source: U.S. Bureau of the Census, Census of Population: 1960, General Social and Economic Characteristics, Hawaii, PC(1)-13C (1962), tables 66 and 67 (for 1949 data); 1970 Census of Population, General and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 47 (for 1959 data); 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61 (for 1969 and 1979 data); "Household Money Income in 1975, by Housing Tenure and Residence, for the United States, Regions, Divisions, and State (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 108 (November 1977), p. 145; "Money Income and Poverty Status in 1975 of Families and Persons in the United States and the West Region, by Divisions and States (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 113 (July 1978), pp. 175-177; Current Population Survey (March), annual, 1981 to 1989, machine-readable file, tabulated by Hawaii State Data Center.

Table 400.-- INCOME OF HOUSEHOLDS AND FAMILIES: ANNUAL AVERAGES, 1983 TO 1985 AND 1986 TO 1988

[Data refer to income before taxes, as reported in March survey in following year. Based on a pooled sample of 1,630 households for 1983-1985 and 1,540 households for 1986-1988]

Income	Households		Families	
	1983-1985	1986-1988	1983-1985	1986-1988
Total	329,037	361,986	251,104	273,083
Under $5,000	18,491	16,493	7,814	5,738
$5,000 to $7,499	14,111	15,955	6,956	8,383
$7,500 to $9,999	16,725	11,214	9,835	5,226
$10,000 to $14,999	33,889	28,305	23,437	16,717
$15,000 to $19,999	33,753	34,126	22,420	22,763
$20,000 to $24,999	29,325	33,131	23,607	21,540
$25,000 to $34,999	56,217	55,585	47,015	44,566
$35,000 to $49,999	63,739	69,688	55,717	58,328
$50,000 to $74,999	45,519	67,091	39,168	62,133
$75,000 and over	17,268	30,398	15,135	27,689
Median income (dollars)	28,094	32,278	31,713	37,866

Source: U.S. Bureau of the Census for U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1984 to 1989; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 401.-- MEDIAN FAMILY INCOME AND RANK: 1979 AND 1990

[Data refer to calendar year 1979 and fiscal year 1990]

Year	The State			Oahu (dollars)	Neighbor Islands (dollars)
	Amount (dollars)	Percent of U.S.	Rank 1/		
1979	22,751	114.2	5	23,553	20,607
1990	39,800	114.8	8	41,200	34,500

1/ Among 50 States.
Source: U.S. Department of Housing and Urban Development, "Estimated Median Family Incomes for Fiscal Year 1990," memorandum dated February 1, 1990.

Table 402.-- ESTIMATED DECILE DISTRIBUTIONS OF FAMILY INCOMES, BY COUNTIES: 1979 AND 1990

[Data refer to calendar year 1979 and fiscal year 1990]

County	1st decile		5th decile (median)		9th decile	
	1979	1990	1979	1990	1979	1990
Honolulu	7,569	13,240	23,553	41,200	49,866	87,227
Hawaii	5,975	9,994	19,131	32,000	42,778	71,553
Kauai	7,089	11,848	20,881	34,900	42,150	70,448
Maui	7,216	12,049	22,578	37,700	48,653	81,239

Source: U.S. Department of Housing and Urban Development, Office of Economic Affairs, Economic and Market Analysis Division, estimates dated January 2, 1990.

Table 403.-- INCOME AND POVERTY STATUS IN PREVIOUS YEAR: 1970 AND 1980

Subject	1970	1980
INCOME IN PREVIOUS YEAR		
Households	204,415	294,934
Median income (current dollars)	$10,675	$20,473
Median income (1979 dollars)	$21,137	$20,473
Families	170,729	227,974
Median income (current dollars)	$11,664	$22,750
Median income (1979 dollars)	$23,095	$22,750
Unrelated individuals 15 years and over	83,093	136,692
Median income (current dollars)	$2,981	$7,097
Median income (1979 dollars)	$5,902	$7,097
Male, 15 years and over 1/	289,165	378,942
Without income	29,578	29,106
With income	259,587	349,836
Median income (current dollars)	$6,528	$11,505
Median income (1979 dollars)	$12,925	$11,505
Female, 15 years and over 1/	264,590	360,707
Without income	94,729	78,1157
With income	169,861	282,592
Median income (current dollars)	$3,222	$6,581
Median income (1979 dollars)	$6,380	$6,681
INCOME IN PREVIOUS YEAR BELOW POVERTY LEVEL 2/		
Persons	68,364	91,618
65 years and over	8,457	7,654
In families	51,530	66,843
Householder	13,063	17,700
Female householder, no husband present	5,180	7,985
Related child under 18 years	27,895	35,103
Related child under 6 years	10,129	14,725
Other relatives	10,572	14,040
Unrelated individuals	16,834	24,775
65 years and over	4,561	4,9277

1/ 14 years and over in 1970.

2/ Percent columns show percent below poverty level for specified groups. Data are based on U.S. poverty thresholds. Thresholds in Hawaii are about 15 percent higher; these statistics accordingly understate the number of persons in Hawaii below the poverty level.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-13C (July 1983), table 61.

Table 404.-- POVERTY STATUS IN 1979 OF FAMILIES AND PERSONS: 1980

[Based on nationwide poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the numbers of persons and families below the poverty level in Hawaii. Data refer to the poverty status in 1979 of families and persons surveyed in April 1980]

Subject	Number
ALL INCOME LEVELS IN 1979	
Families	227,974
Unrelated individuals	107,787
Persons	927,032
INCOME IN 1979 BELOW POVERTY LEVEL	
Families	17,700
Percent below poverty level	7.8
Unrelated individuals	24,775
Percent below poverty level	23.0
Persons	91,618
Percent below poverty level	9.9
INCOME IN 1979 BELOW 125 PERCENT OF POVERTY LEVEL	
Families	26,815
Percent below poverty level	11.8
Unrelated individuals	30,725
Percent below poverty level	28.5
Persons	133,214
Percent below poverty level	14.4
INCOME IN 1979 BELOW SPECIFIED POVERTY LEVEL	
Percent of persons:	
Below 75 percent of poverty level	6.1
Below 150 percent of poverty level	19.0
Below 200 percent of poverty level	29.0

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 72.

Table 405.-- POVERTY STATUS OF FAMILIES AND UNRELATED INDIVIDUALS: 1969 TO 1988

[Based on censuses or surveys made in March or April of following year]

Year	Families			Unrelated individuals 2/		
	Total	Below poverty level 1/		Total	Below poverty level 1/	
		Number	Percent		Number	Percent
1969 ..	170,729	13,046	7.6	55,588	16,833	30.3
1975 ..	201,000	13,000	6.4	66,000	14,000	21.6
1979 ..	227,974	17,700	7.8	107,787	24,775	23.0
1985 ..	253,907	18,776	7.4	117,639	27,243	23.2
1986 ..	264,683	23,419	8.8	122,419	31,828	26.0
1987 ..	281,599	20,468	7.3	107,656	19,513	18.1
1988 ..	272,948	22,805	8.4	124,501	27,241	21.9

1/ Based on Mainland poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the number and percent of families and unrelated individuals below poverty level in Hawaii.

2/ 14 years old and over through 1975, and 15 years old and over thereafter. Data for 1975 and 1985 to 1988 exclude persons in military group quarters.

Source: U.S. Bureau of the Census, 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 58; "Money Income and Poverty Status in 1975 of Families and Persons in the United States and West Region, by Divisions and States (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 113 (July 1978), pp. 179-180; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 72; Current Population Survey (March), 1986 to 1989, machine-readable file, special tabulation by Hawaii State Data Center.

Table 406.-- POVERTY INCOME GUIDELINES: 1980, 1989 AND 1990

[In dollars. These family income levels are poverty thresholds established by the U.S. Department of Health and Human Services to determine eligibility for certain Federal programs for the poor. In earlier years, these guidelines were issued by the Community Services Administration]

Size of family unit	Effective April 21, 1980 1/	Effective Feb. 16, 1989 2/	Effective Feb. 16, 1990 2/
1	4,370	6,870	7,230
2	5,770	9,220	9,690
3	7,170	11,570	12,150
4	8,570	13,920	3/ 14,610
5	9,970	16,270	17,070
6	11,370	18,620	19,530
7	12,770	20,970	21,990
8	14,170	23,320	4/ 24,450

1/ Nonfarm families only; guidelines for farm families were lower.
2/ All families.
3/ Corresponding levels for four-person families elsewhere in the United States were $12,700 on the Mainland and $15,880 in Alaska.
4/ For larger families, add $2,460 for each additional member.

Source: Community Services Administration, "General Characteristics of Community Action Programs; Income Poverty Guidelines (Revised)," Federal Register, Vol. 45, No. 78 (April 21, 1980), pp. 26712-26713; U.S. Department of Health and Human Services, "Annual Update of the Poverty Income Guidelines," Federal Register, Vol. 54, No. 31 (February 16, 1989), pp. 7097-7098, and "Annual Update of the Poverty Income Guidelines," Federal Register, Vol. 55, No. 33 (February 16, 1990), pp. 5664-5666.

Table 407.-- ANNUAL INCOME AND EXPENDITURES OF URBAN CONSUMER UNITS, FOR OAHU: 1980-81 TO 1986-87

[Data based on 792 sample interviews in 1980-81, 928 in 1982-83, 1,043 in 1984-85, and 1,214 in 1986-87. The 1986-87 tabulations are not strictly comparable to earlier data. For detailed breakdowns, see source]

Item	Annual averages (dollars)			
	1980-81	1982-83	1984-85	1986-87
Total expenditures	18,584	22,247	24,818	28,239
Food at home	2,681	2,838	2,994	2,600
Food away from home	887	1,265	1,350	2,195
Alcoholic beverages	302	460	413	351
Housing	5,454	6,122	6,934	8,610
Shelter	3,523	3,948	4,735	5,800
Utilities, fuels, and public services	937	1,142	1,144	1,099
Household operations	369	280	311	324
Housekeeping supplies	...	...	...	390
Housefurnishings and equipment	626	751	745	996
Apparel and services	773	1,080	1,158	1,688
Transportation	3,729	4,051	4,681	4,244
Health care	731	770	987	1,026
Entertainment	804	1,101	1,170	1,466
Personal care	153	232	243	413
Reading	119	159	176	169
Education	265	380	454	665
Tobacco and smoking supplies	143	177	214	208
Miscellaneous	258	482	480	603
Cash contributions	504	923	1,191	785
Personal insurance and pensions	1,779	2,204	2,391	3,217
Money income before taxes	22,926	27,937	30,751	32,575
Personal taxes	2,915	3,595	2,965	2,907
Other money receipts	123	227	579	(NA)
Mortgage principal paid on owned property	440	635	490	(NA)
Gifts of goods and services	498	690	700	(NA)

NA Not available.

Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey: Interview, 1984, Bulletin 2267 (August 1986), pp. 67-70 and 83-86; 1984-85 printouts; and Consumer Expenditures, 1986-87--Honolulu Area (BLS Release 89-73, November 13, 1989).

Table 408.-- TOP WEALTHHOLDERS: 1962 TO 1986

[Top wealthholders are defined as persons with a gross estate in excess of specified amounts, rising from $60,000 in 1962 to $500,000 in 1986. All figures are estimates based on estate tax return samples]

Group and year	Number of top wealth-holders	Millions of dollars		
		Total assets	Debts and mort-gages	Net worth
Gross estate over $60,000:				
1962	11,323	1,908	231	1,677
1969	36,470	6,327	1,090	5,236
1972	57,700	7,866	1,369	6,497
Gross estate over $120,000:				
1976	39,000	7,436	1,546	5,890
Gross estate over $325,000:				
1982	20,300	14,767	3,523	11,244
Gross estate over $500,000:				
1982	8,700	10,864	2,919	7,946
1986	11,000	11,330	1,475	9,855

Source: U.S. Internal Revenue Service, Statistics of Income - 1962, Personal Wealth (1967), pp. 55-56; Statistics of Income - 1969, Personal Wealth (1973), pp. 57-58; Statistics of Income - 1972, Personal Wealth Estimated from Estate Tax Returns (1976), table 33; and Statistics of Income Bulletin, Summer 1983, pp. 1-26, Spring 1988, pp. 31-46, and Spring 1990, pp. 63-78.

Table 409.-- TOTAL AND SELECTED ASSETS, DEBTS AND MORTGAGES, AND NET WORTH OF TOP WEALTHHOLDERS: 1986

[Top wealthholders are defined for this table as persons with net worth under $10,000,000 and gross assets of $500,000 or more]

Subject	Number of persons	Amount (millions of dollars)
Total assets 1/	11,000	11,330
Debts and mortgages	10,100	1,475
Net worth	11,000	9,855
Total assets by type:		
Real estate	10,800	5,447
Corporate stock	8,900	2,439
Cash	10,700	1,041
Total bonds	5,800	806

1/ For the U.S., top wealthholders numbered 3,304,300. Hawaii ranked 42nd among the 50 States. In top wealthholders per 10,000 residents 18 years and over, ratios were 141 for Hawaii and 186 for the entire nation.

Source: U.S. Internal Revenue Service, "Estimates of Personal Wealth, 1986," SOI Bulletin, Spring 1990, pp. 63-78, table 7.

Table 410.-- WORTH OF RICHEST RESIDENTS: 1990

Name	Age (years)	Net worth (million dollars)
Barbara Cox Anthony	67	2,600
Harry Weinberg	82	950
Doris Duke 1/	77	750
Campbell family	...	700
Kelley family	...	500
Richard Palmer Kaleioku Smart	77	325

1/ Also a resident of New Jersey and Rhode Island.

Source: "The 400 Richest People in America," Forbes, October 22, 1990, pp. 116-327.

Section 14

PRICES

This section presents indexes of consumer prices for Honolulu, the implicit price deflator for gross state product, actual prices for selected foods, and comparisons of Honolulu and Hilo living costs with those in other urban areas. Other statistics on prices are reported in Sections 7, 16, 17, 18, 21, and 23

During the first six months of 1990, the Honolulu all-items consumer price index for all urban consumers (CPI-U) averaged 135.5, with the 1982-1984 level equal to 100. The index had increased 7.2 percent over the first half of 1989, 27.5 percent since 1985, and 63.3 percent since 1980. Prices have risen most rapidly since the 1982-84 base period for shelter (50.7 percent) and medical care (49.8 percent) and have dropped most rapidly for electricity (19.0 percent). The implicit price deflator for expenditures on gross state product (a measure of price changes used in the state product accounts) rose 55.7 percent between 1979 and 1989.

An "intermediate" budget for a four-person family living on Oahu was unofficially estimated at $47,361 as of 1989. This family budget was 29.9 percent higher than the corresponding urban United States average. Differences were particularly marked for renter shelter costs (47.2 percent higher) and personal income taxes (67.7 percent higher).

The Honolulu consumer price index has been compiled by the U.S. Bureau of Labor Statistics since December 1963. This index measures the average change in prices of goods and services purchased by urban households. Prices are expressed as a percent of the average levels reported in 1982-1984, the base date. Current data for Honolulu and other cities are published in CPI Detailed Report, issued monthly by BLS.

Important technical changes have been made in the consumer price index in recent years. In 1978, the Bureau of Labor Statistics added a new index, the CPI-U, covering all urban consumers, to the older index, the CPI-W, which was limited to urban wage earners and clerical workers and their families. In 1983, the basis for measuring homeowners' costs was substantially modified. In 1987, component weights based on a 1982-1984 survey replaced the older weights derived from 1972-1973 data. At the same time, the publication of the Honolulu indexes was moved from a bimonthly to a semi-annual basis. Beginning in 1988, the base period was shifted from 1967 to 1982-1984. Both the CPI-U and CPI-W have been linked by DBED to older indexes going back to 1940.

Official comparisons of Honolulu and Mainland living costs are no longer being made. The annual four-person family budgets estimated by the Bureau of Labor Statistics for Honolulu and the Mainland were discontinued after 1981, and are now maintained unofficially by the Bank of Hawaii. The annual comparison of prices in Hawaii and Washington, D.C., compiled by the U.S. Office of Personnel Management to provide a basis for cost of living adjustments for Federal employees, has not been published since 1983. The American Chamber of Commerce Researchers Association (ACCRA) added Hilo to its list of participating cities for comparative living cost surveys in 1990.

No composite wholesale or producer price index is available for Hawaii. Average wholesale prices of agricultural products are reported in Statistics of Hawaiian Agriculture, issued by the Hawaii Agricultural Statistics Service, and in various other publications of the State Department of Agriculture. Wholesale price statistics of other commodities are seldom available.

Data on prices and living costs for the nation as a whole and other areas are summarized in Statistical Abstract of the United States: 1990, Section 15. Long-term trends for Hawaii are traced in Historical Statistics of Hawaii, Section 5.

Table 411.-- IMPLICIT PRICE DEFLATOR FOR EXPENDITURES ON GROSS STATE PRODUCT: SELECTED YEARS, 1958 TO 1989

[1982 = 100]

Year	Deflator	Year	Deflator	Year	Deflator
1958 ...	34.1	1978 ...	77.1	1984 ...	108.1
1960 ...	34.4	1979 ...	84.0	1985 ...	111.7
1965 ...	37.7	1980 ...	89.3	1986 ...	114.6
1970 ...	47.3	1981 ...	93.3	1987 ...	119.8
1975 ...	63.9	1982 ...	100.0	1988 ...	124.5
1976 ...	67.5	1983 ...	104.2	1989 ...	130.8
1977 ...	71.0				

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958-1988 (June 1989), tables 1-A and 1-5, and Quarterly Statistical & Economic Report, 2nd Quarter 1990, p. 13.

Table 412.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: ANNUAL AVERAGES, 1940 TO 1989

[1982-1984 average = 100. Excludes rent before 1963]

Year	CPI-U	CPI-W	Year	CPI-U	CPI-W
1940	14.7	14.5	1965	34.4	33.9
1941	15.5	15.3	1966	35.3	34.8
1942	17.6	17.4	1967	36.3	35.8
1943	18.9	18.7	1968	37.7	37.2
1944	19.2	19.0	1969	39.4	38.8
1945	19.7	19.5			
1946	21.0	20.8	1970	41.5	40.9
1947	24.4	24.1	1971	43.2	42.6
1948	25.7	25.4	1972	44.6	44.0
1949	25.2	24.9	1973	46.6	45.9
			1974	51.5	50.8
1950	24.3	24.0	1975	56.3	55.5
1951	25.7	25.4	1976	59.1	58.3
1952	26.5	26.2	1977	62.1	61.2
1953	26.7	26.4	1978	66.9	65.9
1954	26.9	26.6	1979	74.3	73.2
1955	27.3	27.0			
1956	27.7	27.4	1980	83.0	81.9
1957	28.6	28.3	1981	91.7	90.5
1958	30.0	29.6	1982	97.2	96.0
1959	30.5	30.1	1983	99.3	99.8
			1984	103.5	104.3
1960	31.3	30.9	1985	106.8	107.9
1961	32.1	31.7	1986	109.4	110.3
1962	32.8	32.4	1987	114.9	115.9
1963	33.5	33.1	1988	121.7	122.8
1964	33.7	33.3	1989	128.7	129.7

Source: 1964-1989 from U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly) and BLS tapes tabulated by Hawaii State Data Center. 1940-1963 from surveys by Eugene Danaher and Hawaii State Department of Labor and Industrial Relations, cited in Hawaii State Department of Planning and Economic Development, The Honolulu Consumer Price Index, 1940-1986 (Statistical Report 187, May 30, 1986), as shifted to 1982-1984 base by Hawaii State Data Center.

Table 413.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: SEMI-ANNUALLY, 1984 TO 1990

[1982-1984 average = 100]

Year	All urban consumers (CPI-U)			Urban wage earners and clerical workers (CPI-W)		
	Annual average	First half	Second half	Annual average	First half	Second half
1984 ...	103.5	102.5	104.4	104.3	103.0	105.5
1985 ...	106.8	106.3	107.4	107.9	107.4	108.4
1986 ...	109.4	108.9	109.9	110.3	109.9	110.7
1987 ...	114.9	113.3	116.5	115.9	114.3	117.6
1988 ...	121.7	120.1	123.4	122.8	121.1	124.5
1989 ...	128.7	126.4	131.1	129.7	127.4	132.0
1990 ...	...	135.5	...	...	136.3	...

NA Not available.

Source: U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly), BLS tapes tabulated by Hawaii State Data Center, and BLS press releases.

Table 414.-- PERCENT CHANGE IN SELECTED PRICE INDEXES: 1979 TO 1989

Index 1/	1979 to 1989	1979 to 1984	1984 to 1989	1985 to 1986	1986 to 1987	1987 to 1988	1988 to 1989
GSP deflator	55.7	28.7	21.0	2.6	4.5	3.9	5.1
Honolulu CPI-U	73.2	39.3	24.3	2.4	5.0	5.9	5.8
Honolulu CPI-W	77.2	42.5	24.4	2.2	5.1	6.0	5.6
U.S. CPI-U	70.8	43.1	19.3	1.9	3.7	4.1	4.8

1/ GSP deflator, the implicit price deflator for expenditures on Hawaii gross state product; CPI-U, consumer price index for all urban consumers; CPI-W, consumer price index for urban wage earners and clerical workers.

Source: U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly); present report, tables 411 and 412.

Table 415.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS (CPI-U), BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1985 TO 1989

[Unless otherwise specified, 1982-1984 average=100]

Group	1985	1986	1987	1988	1989
All items	106.8	109.4	114.9	121.7	128.7
Food and beverages	107.8	110.0	114.1	120.3	128.1
Food	107.7	109.9	114.3	120.2	128.2
Food at home	106.7	109.0	113.4	120.0	131.5
Cereals and bakery products	109.4	112.8	117.2	127.0	139.3
Meats, poultry, fish, and eggs	102.6	104.3	108.5	119.1	133.1
Meats, poultry, and fish	102.6	104.3	107.9	119.1	133.9
Dairy products	103.6	105.0	105.9	106.5	115.5
Fruits and vegetables	111.9	112.3	116.5	122.3	142.2
Other foods at home	108.9	113.2	119.4	122.2	123.0
Food away from home	108.6	111.4	115.6	121.0	122.2
Alcoholic beverages	108.4	111.1	111.4	121.0	126.5
Housing	106.0	108.4	115.0	123.0	131.1
Shelter	108.5	113.9	122.1	132.1	141.1
Renters' costs 1/	115.0	121.1	127.3	133.9	143.4
Rent, residential	110.9	116.9	122.3	129.4	139.3
Other renters' costs	117.9	122.5	129.7	131.7	136.3
Homeowners' costs 1/	110.4	115.7	124.9	136.5	147.7
Owners' equivalent rent 1/	110.4	115.8	125.0	136.8	148.1
Fuel and other utilities	97.5	87.6	88.8	87.3	90.9
Fuels	93.0	75.2	77.8	72.6	75.7
Gas (piped) and electricity	92.9	74.9	77.4	72.1	75.1
Electricity	92.3	73.3	76.0	70.4	73.7
Utility (piped) gas	98.7	88.2	87.6	86.5	85.9
Household furnishings and operation	103.0	104.7	108.8	117.3	125.8
Apparel and upkeep	99.6	99.8	102.5	106.8	104.3
Apparel commodities	98.6	98.5	101.2	105.4	102.4
Men's and boys' apparel	104.2	106.8	114.7	121.2	123.8
Women's and-girls' apparel	102.8	102.0	100.3	105.3	97.1
Footwear	103.2	100.8	100.4	101.2	93.0
Transportation	104.9	105.2	109.7	116.1	123.9
Private transportation	105.3	105.4	109.7	116.4	124.3
Motor fuel	100.7	88.5	90.9	95.4	101.1
Gasoline	100.8	88.5	91.0	95.3	100.7
Public transportation	101.8	103.8	109.1	112.9	119.4
Medical care	113.2	122.3	127.9	132.5	139.3
Entertainment	111.9	113.2	118.6	122.9	124.3
Other goods and services	112.5	119.6	129.7	137.1	146.1
Personal care	103.8	107.3	112.6	115.8	122.1

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Table 415.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS (CPI-U), BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1985 TO 1989 -- Con.

Group	1985	1986	1987	1988	1989
All items	106.8	109.4	114.9	121.7	128.7
Commodities	105.7	106.2	109.6	115.5	121.6
Food and beverages	107.8	110.0	114.1	120.3	128.1
Commodities less food and beverages	104.0	103.1	106.0	111.8	116.4
Nondurables less food and beverages	104.3	102.5	105.5	110.1	113.8
Durables	103.7	104.5	107.2	114.9	121.0
Services	107.9	112.3	119.8	127.4	135.2
Medical care services	113.0	122.1	128.1	132.4	139.2
Special indexes:					
All items less shelter	106.3	107.7	112.2	117.7	124.0
All items less medical care	106.4	108.6	114.1	121.0	128.0
All items less energy	107.8	112.0	118.1	125.5	132.7
Energy	97.1	82.3	84.8	84.7	89.2
Commodities less food	104.2	103.5	106.2	112.1	116.8
Nondurables less food	104.6	103.0	105.8	110.7	114.6
Nondurables	106.2	106.6	110.2	115.7	121.7
Services less rent of shelter 1/	109.2	112.6	119.0	123.8	130.2
Services less medical care	107.3	111.2	118.8	126.6	134.5

1/ December 1982=100.

Source: U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly), printouts, and tapes tabulated by Hawaii State Data Center.

Table 416.-- CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS (CPI-W) BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1985 TO 1989

[Unless otherwise specified, 1982-1984 average=100]

Group	1985	1986	1987	1988	1989
All items	107.9	110.3	115.9	122.8	129.7
Food and beverages	108.3	110.8	115.3	121.7	129.2
Food	108.2	110.8	115.6	121.7	129.3
Food at home	107.4	110.1	114.9	121.9	133.1
Cereals and bakery products	108.8	111.7	115.7	125.4	137.7
Meats, poultry, fish, and eggs	105.2	107.6	112.9	124.3	138.4
Meats, poultry, and fish	105.3	107.8	112.4	124.6	139.5
Dairy products	103.5	104.9	105.5	106.5	114.6
Fruits and vegetables	111.1	112.3	117.9	123.0	140.8
Other foods at home	109.1	113.3	119.0	122.0	123.2
Food away from home	108.8	111.8	116.1	121.4	122.6
Alcoholic beverages	108.5	111.3	111.1	121.4	126.6
Housing	108.6	111.0	117.4	125.5	133.7
Shelter	112.3	117.7	126.0	136.3	145.6
Renters' costs 1/	102.8	108.2	113.2	119.3	127.9
Rent, residential	110.9	116.9	122.3	129.4	139.3
Other renters' costs	118.9	122.8	128.8	130.7	135.2
Homeowners' costs 1/	103.3	108.4	116.9	127.9	138.3
Owners' equivalent rent 1/	103.3	108.4	117.0	128.1	138.7
Fuel and other utilities	97.5	87.6	88.7	87.4	91.1
Fuels	93.1	75.3	77.7	72.7	75.6
Gas (piped) and electricity	93.0	75.1	77.5	72.4	75.2
Electricity	92.2	73.3	76.0	70.4	73.7
Utility (piped) gas	98.6	88.3	87.6	86.5	85.9
Household furnishings and operation	103.4	105.6	109.7	118.7	126.5
Apparel and upkeep	99.4	100.1	103.7	108.2	105.2
Apparel commodities	98.4	98.7	102.3	106.9	103.5
Men's and boys' apparel	104.9	107.6	116.6	123.5	126.1
Women's and girls' apparel	102.9	103.1	101.8	107.1	98.0
Footwear	103.0	100.8	100.4	101.4	93.5
Transportation	104.7	104.7	109.2	115.7	123.7
Private transportation	105.0	104.8	108.8	115.5	123.8
Motor fuel	100.7	88.5	90.9	95.4	101.1
Gasoline	100.8	88.5	91.0	95.3	100.7
Public transportation	101.8	103.6	110.2	113.6	119.3
Medical care	112.6	121.1	126.7	131.4	138.3
Entertainment	111.9	113.1	119.3	123.6	123.5
Other goods and services	112.5	119.1	128.7	136.4	146.3
Personal care	104.0	107.5	112.7	115.7	121.9

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Table 416.-- CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS (CPI-W), BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1985 TO 1989 -- Con.

Group	1985	1986	1987	1988	1989
All items	107.9	110.3	115.9	122.8	129.7
Commodities	106.4	107.0	110.7	116.8	122.8
Food and beverages	108.3	110.8	115.3	121.7	129.2
Commodities less food and beverages	105.4	104.5	107.4	113.3	118.1
Nondurables less food and beverages	104.3	102.2	105.4	110.1	113.8
Durables	106.2	107.4	110.0	117.8	124.3
Services	109.8	114.3	121.9	129.5	137.5
Medical care services	112.3	120.7	126.9	131.3	138.2
Special indexes:					
All items less shelter	106.3	107.8	112.4	118.2	124.2
All items less medical care	107.6	109.6	115.2	122.2	129.1
All items less energy	109.0	113.3	119.3	126.9	134.0
Energy	97.5	83.0	85.4	85.7	90.3
Commodities less food	105.6	104.7	107.5	113.6	118.4
Nondurables less food	104.6	102.8	105.7	110.8	114.7
Nondurables	106.5	107.1	111.0	116.7	122.5
Services less rent of shelter 1/	101.0	104.1	110.5	115.0	121.0
Services less medical care	109.5	113.5	121.2	129.1	137.1

1/ December 1984=100.

Source: U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly), printouts, and tapes tabulated by Hawaii State Data Center.

Table 417.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1989

[Percent of all items]

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY		
All items	100.000	100.000
Food and beverages	20.893	22.020
Food	19.465	20.320
Food at home	12.884	12.993
Cereals and bakery products	1.684	1.935
Meats, poultry, fish, and eggs	4.292	4.625
Meats, poultry, and fish	4.035	4.300
Dairy products	1.015	.945
Fruits and vegetables	3.237	2.992
Other foods at home	2.656	2.495
Food away from home	6.581	7.327
Alcoholic beverages	1.428	1.700
Housing	42.566	39.734
Shelter	31.669	29.252
Renters' costs	9.047	9.183
Rent, residential	7.835	8.347
Other renters' costs	1.212	.835
Homeowners' costs	22.439	19.897
Owners' equivalent rent	22.225	19.746
Fuel and other utilities	4.251	4.551
Fuels	1.959	2.072
Fuel oil, coal, and bottled gas	.022	.027
Fuel oil	.001	.004
Other fuels	.021	.023
Gas (piped) and electricity	1.937	2.045
Electricity	1.766	1.798
Utility (piped) gas	.171	.247
Household furnishings and operations	6.646	5.931
Apparel and upkeep	4.899	5.122
Apparel commodities	4.555	4.758
Men's and boys'	1.332	1.470
Women's and girls'	1.898	1.925
Footwear	.584	.653

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Table 417.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1989 -- Con.

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY -- Con.		
Transportation	16.289	18.441
Private	14.524	17.083
Motor fuel	2.895	3.531
Public	1.765	1.359
Medical care	5.035	4.773
Entertainment	4.305	4.110
Other goods and services	6.012	5.800
Personal care	1.245	1.362
COMMODITY AND SERVICE GROUP		
All items	100.000	100.000
Commodities	43.495	46.984
Food and beverages	20.893	22.020
Commodities less food and beverages	22.602	24.964
Nondurables less food and beverages	13.697	14.887
Durables	8.904	10.077
Services	56.505	53.016
Medical care services	4.130	3.841
Special indexes:		
All items less shelter	68.331	70.748
All items less medical care	94.965	95.227
All items less energy	95.146	94.396
Energy	4.854	5.604
Commodities less food	24.029	26.663
Nondurables less food	15.125	16.587
Nondurables	34.590	36.907
Services less rent of shelter	25.247	24.102
Services less medical care	52.376	49.176

1/ Consumer price index for all urban consumers.

2/ Consumer price index for urban wage earners and clerical workers.

Source: U.S. Bureau of Labor Statistics, printout.

Table 418.-- RETAIL FOOD PRICES FOR HONOLULU AND KAUAI, COMPARED WITH MAINLAND CITIES: 1985 TO 1987

[June data for a "market basket" of 35 or more common food items surveyed in various cities. Data include sales taxes. This survey was suspended after 1987]

Subject	1985	1986	1987
Honolulu:			
Amount (dollars)	61.45	59.64	65.83
Rank	1	1	1
Percent of U.S. average	131.4	125.3	126.6
Kauai:			
Percent of Honolulu	111	(NA)	119
Percent of U.S. average	145	(NA)	147
Number of cities surveyed (excl. Kauai)	21	21	17

NA Not available.

Source: Honolulu Advertiser, July 22, 1985, (p. D-1) August 21, 1985 (p. A-7), July 29, 1986 (p. B-1) and June 25, 1987 (p. A-1, as corrected); Sunday Star-Bulletin and Advertiser, August 30, 1987 (p. B-1).

Table 419.-- COST OF LIVING INDEX FOR HILO: SECOND QUARTER 1990

[Hilo living costs as a percent of average costs in 295 participating urban areas]

Component	Weight (percent)	Hilo index
Composite index	100	132.5
Grocery items	17	140.7
Housing	22	162.3
Utilities	11	102.0
Transportation	13	127.2
Health care	7	110.7
Miscellaneous goods and services	30	124.6

Source: American Chamber of Commerce Researchers Association (ACCRA), Cost of Living Index, Second Quarter 1990, provided by Institute for Business and Economic Studies, University of Hawaii at Hilo.

Table 420.-- ANNUAL INTERMEDIATE BUDGET FOR A FOUR-PERSON FAMILY ON OAHU: 1971 TO 1989

Year	Dollars	Percent of urban U.S.	Year	Dollars	Percent of urban U.S.
1971	13,108	119.5	1981	31,893	125.5
1972	13,617	119.0	1982	33,403	124.5
1973	14,937	118.3	1983	33,890	124.3
1974	17,019	118.8	1984	35,484	124.4
1975	18,107	117.0	1985	36,926	122.7
1976	19,036	117.2	1986	38,438	123.2
1977	20,883	122.1	1987	41,790	126.7
1978	23,099	124.0	1988	44,354	128.1
1979	25,799	125.7	1989	47,361	129.9
1980	28,488	123.1			

Source: U.S. Bureau of Labor Statistics, annual releases for 1971-1981; 1982-1989 estimates by Paul Brewbaker, Economics Department, Bank of Hawaii.

Table 421.-- ANNUAL INTERMEDIATE BUDGETS, BY ITEM, FOR A FOUR-PERSON FAMILY IN THE UNITED STATES AND ON OAHU: 1981 AND 1989

[Hypothetical budgets for a family of specified characteristics, based on 1972-1973 expenditure patterns as updated by the consumer price index and current tax rates. The 1981 values are official estimates published by the U.S. Bureau of Labor Statistics; the 1989 values are unofficial estimates prepared by the Bank of Hawaii, using comparable assumptions and methodology. Users of these estimates should bear in mind the limitations imposed by the underlying assumptions and methods]

Item	Urban United States (dollars)		Oahu (dollars)		Oahu as percent of urban U.S.	
	1981	1989	1981	1989	1981	1989
Total budget	25,409	36,470	31,893	47,361	125.5	129.9
Consumption	18,242	25,562	21,530	30,992	118.0	121.2
Food	5,843	7,746	7,626	10,578	130.5	136.6
Food at home	4,866	6,377	6,649	9,229	136.6	144.7
Food away from home	977	1,369	977	1,349	100.0	98.5
Housing	5,547	7,803	6,493	9,698	117.1	124.3
Homeowner shelter costs	4,886	7,162	5,467	8,655	111.9	120.8
Renter shelter costs	2,732	4,083	3,991	6,010	146.1	147.2
Housefurnishings and operations	1,199	1,411	1,395	1,704	116.3	120.8
Transportation	2,372	2,905	2,421	3,134	102.1	107.9
Clothing	1,333	1,663	1,432	1,581	107.4	95.1
Personal care	508	710	590	823	116.1	115.9
Medical care	1,443	2,598	1,590	2,709	110.2	104.3
Other family consumption 1/	1,196	2,137	1,378	2,469	115.2	115.5
Other items 2/	1,021	1,392	1,137	1,596	113.6	114.7
Social Security payments	1,703	2,988	2,049	3,824	120.3	128.0
Personal income taxes	4,443	6,528	7,177	10,949	161.5	167.7

1/ Reading, recreation, tobacco products, alcoholic beverages, education, and miscellaneous expenditures.

2/ Includes gifts and contributions, life insurance, and occupational expenses.

Source: U.S. Bureau of Labor Statistics, *Autumn 1981 Urban Family Budgets and Comparative Indexes for Selected Urban Areas* (release USDL: 82-139, April 16, 1981); 1989 estimates by Paul Brewbaker, Economics Department, Bank of Hawaii.

Table 422.-- ANNUAL BUDGETS FOR A FOUR-PERSON FAMILY AND A RETIRED COUPLE ON OAHU: 1981 AND 1989

Year and budget level	Total budget (dollars)		Percent of U.S. urban average		Rank among 25 metro. areas	
	4-person family	Retired couple 1/	4-person family	Retired couple	4-person family	Retired couple
1981						
Lower budget	20,319	8,665	133	120	2	2
Intermediate budget	31,893	12,157	126	119	1	2
Higher budget	50,317	17,576	132	117	1	2
1989						
Intermediate budget	47,361	(NA)	130	(NA)	(NA)	(NA)

NA Not available.

1/ Excludes personal income taxes.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Autumn 1981 Urban Family Budgets and Comparative Indexes for Selected Urban Areas (release USDL:82-139, April 16,1982), and Three Budgets for a Retired Couple, Autumn 1981 (release USDL:82-266, July 30, 1982); Economics Department, Bank of Hawaii, unpublished study.

Table 423.-- COST OF RAISING A CHILD FROM BIRTH TO AGE 18: JUNE 1989

[In dollars. Moderate-cost level for a husband-wife family with no more than 5 children, living in the Western States]

Residence	18-year total	Annual average
Urban	116,995	6,500
Rural nonfarm	122,242	6,791

Source: U.S. Department of Agriculture, Family Economics Review, 1989, Vol. 2, No. 4, pp. 30-31.

Table 424.-- COST OF LIVING INDEXES, 1983, AND PAY DIFFERENTIALS, 1990, FOR FEDERAL EMPLOYEES IN HAWAII RELATIVE TO WASHINGTON, D.C.

Allowance category 1/	Oahu	Kauai	Maui County	Hawaii
INDEXES, 1983 2/				
Local retail:				
Private housing	121.7	114.6	120.9	113.1
Federal housing	105.0	106.7	113.4	104.6
Commissary, PX:				
Private housing	111.8	113.1	...	...
Federal housing	95.1	105.1	...	...
ALLOWANCE RATES, 1990 3/				
Local retail	22.5	17.5	20.0	15.0
Commissary, PX	12.5	17.5	...	...

1/ Based on access to military commissary and exchange facilities and type of housing occupied. "Local retail" refers to Federal employees who purchase goods and services from private retail establishments; "commissary, PX," to Federal employees who have unlimited access to and who use military commissary and exchange facilities. "Private housing" refers to Federal employees who occupy housing units that are privately owned or rented; "Federal housing," to Federal employees who occupy units owned or leased by a Federal agency.

2/ Washington, D.C., living costs=100. Based on a survey of comparative costs for Federal employees in 1983.

3/ Authorized allowance rate, expressed as a percentage differential, effective February 15, 1990. Rates were then equalized for employees in private and Federal housing.

Source: U.S. Office of Personnel Management, "Nonforeign Area Cost-of-Living Allowances for Guam and the State of Hawaii and Post Differentials for Certain Pacific Islands," Federal Personnel Manual System, FPM Letter 591-47 (1983), and "Nonforeign Area Cost-of-Living Allowances," Federal Personnel Manual System, FPM Letter 591-51 (1990).

Section 15

BANKING, INSURANCE, AND BUSINESS ENTERPRISE

Statistics in this section relate to banks and other financial institutions, stocks and bonds, insurance, fires, and business firms.

There were 10 banks with 188 locations, seven savings and loan associations with 152 locations, three trust companies with six branches, and 52 industrial loan or small loan licensees with 192 branch offices in Hawaii as of December 31, 1989. Deposits in insured commercial banks reached $10.9 billion at the end of 1988, compared with $4.5 billion in 1980. Assets of savings and loan associations stood at $5.5 billion in December 1987, almost double their 1980 level of $2.9 billion. There were 132 credit unions with combined assets of $2.3 billion at the end of 1989.

Approximately 256,000 Hawaii residents held shares in U.S. public corporations or investment companies in 1985.

Life insurance in force in Hawaii at the end of 1988 amounted to $41 billion, more than twice the figure reported ten years earlier. For all 805 insurance companies doing business in the Islands, Hawaii premiums amounted to $1.5 billion in 1988 and losses, claims, and benefits paid came to $788 million. Fire losses in fiscal 1990 amounted to $27 million. Persons covered by the four major prepaid health insurance plans as of December 31, 1989 numbered 777,000, with annual membership dues of $712 million.

By mid-1990, almost 46,000 corporations and partnerships were registered to do business in Hawaii: 31,800 local ("domestic") corporations, 5,700 out-of-State ("foreign") corporations, and 8,300 partnerships. Business establishments with one or more employees in 1987 numbered 27,300; over half had fewer than five employees. During fiscal 1990, 3,800 new local corporations were formed. Business receipts of corporations in 1987 exceeded $26 billion; business receipts of partnerships and proprietorships in the same year amounted to respectively $3.5 billion and $1.8 billion. Hawaii's largest corporation, Castle & Cooke, reported annual sales of $2.7 billion. Business failures numbered 167 in 1989.

Sources for statistics on these subjects include the Hawaii State Department of Commerce and Consumer Affairs (specifically its Financial Institutions, Insurance, and Business Registration Divisions), the State Department of Taxation, county fire departments, the New York Stock Exchange, Dun and Bradstreet, Inc., local health insurance plans, the Hawaii Credit Union League, and the annual report on County Business Patterns issued by the U.S. Bureau of the Census. Historical Statistics of Hawaii, Sections 22 and 23, provides information for earlier periods. Comparable Mainland data appear in Sections 16 and 17 of Statistical Abstract of the United States: 1990.

Table 425.-- NUMBER OF FINANCIAL INSTITUTIONS, BY TYPES: 1979 TO 1989

[Excludes out-of-State branches of Hawaii-based institutions. As of December 31]

Type of charter, island, and year	Banks		Savings and loans associations		Trust companies		Industrial loan licensees	
	Firms	Locations	Associations	Locations	Firms	Locations	Firms	Locations
1979	9	159	9	136	4	7	77	247
1980	9	169	8	156	4	7	71	238
1981	9	171	9	163	4	7	76	236
1982	10	166	8	153	4	7	78	230
1983	10	162	8	166	4	7	72	209
1984	10	178	8	163	4	7	77	223
1985	10	179	8	163	4	7	66	201
1986	10	181	8	163	3	6	66	204
1987	10	185	7	148	3	6	64	199
1988	10	182	7	158	4	7	54	185
1989	10	188	7	152	3	6	52	192
TYPE OF CHARTER: 1989								
Federal	3	14	5	129	-	-	-	-
State	7	174	2	23	3	6	52	192
ISLANDS: 1989								
Hawaii	7	21	[illegible]	18	2	2	11	19
Maui	7	20	[illegible]	15	1	1	11	16
Lanai	1	1	1	1	-	-	-	-
Molokai	1	1	2	2	-	-	1	1
Oahu	9	131	7	106	3	3	49	148
Kauai	4	14	6	10	-	-	7	8
Niihau	-	-	-	-	-	-	-	-

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, records.

Table 426.-- CHARACTERISTICS OF STATE-CHARTERED FINANCIAL INSTITUTIONS, BY TYPES: 1987 TO 1989

[As of December 31]

Subject	1987	1988	1989
BANKS			
Number of banks	7	7	7
Number of branches and facilities	188	185	195
Assets (million dollars)	11,305.4	12,560.5	15,401.7
Deposits (million dollars)	9,971.8	11,292.7	13,671.3
Debits to demand deposits (mil. dol.)	123,168	133,916	172,698
Clearings (million dollars)	47,785	52,498	53,861
SAVINGS AND LOAN ASSOCIATIONS			
Number of associations	2	2	2
Number of branches and facilities	23	21	22
Assets (million dollars)	943.5	994.5	987.8
Withdrawable shares (million dollars)	636.5	710.6	704.1
TRUST COMPANIES			
Number of companies	3	3	3
Number of branches and facilities	*3	3	6
Assets (million dollars)	49.5	39.8	48.2
FINANCIAL SERVICES LOAN COMPANIES			
Number of companies	61	51	52
Number of branches	192	153	142
Assets (million dollars)	2,398.2	2,556.6	2,595.1

*Corrected from published figure.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, Comparative Statement of Condition (semi-annual), monthly releases, and records.

Table 427.-- SELECTED FINANCIAL INSTITUTIONS STATISTICAL SUMMARY: 1984 TO 1988

[As of December 31]

Subject	1984	1985	1986	1987	1988
Commercial banks:					
Assets (billion dollars)	8.2	9.2	10.6	11.6	(NA)
Deposits (billion dollars)	7.0	8.0	9.3	10.2	(NA)
Insured commercial banks:					
Assets (billion dollars)	7.4	8.3	9.2	10.1	11.7
Deposits (billion dollars)	7.0	8.0	9.3	10.2	10.9
FSLIC-insured savings institutions:					
Number	(NA)	6	6	6	(NA)
Assets (billion dollars)	(NA)	3.6	3.7	5.5	(NA)
Deposits (billion dollars)	(NA)	2.7	2.7	3.8	(NA)

NA Not available.
Source: Statistical Abstract of the United States (annual).

Table 428.-- CREDIT UNIONS: 1984 TO 1989

[As of December 31]

Year	Number of credit unions	Assets (dollars)	Shares (dollars)	Number of credit union members
1984	142	1,237,993,756	1,113,377,400	424,459
1985	137	1,535,426,151	1,390,984,301	425,973
1986	136	1,906,350,845	1,742,031,717	443,015
1987	136	2,145,826,560	1,938,767,096	461,944
1988	136	2,305,569,314	2,059,966,207	479,610
1989	132	2,284,832,750	2,020,219,693	473,700

Source: Hawaii Credit Union League, records.

Table 429.-- CREDIT CARD OWNERSHIP, FOR OAHU: 1988 AND 1989

[Limited to major credit cards, such as Master Card, VISA, American Express, or Discover. Data based on telephone surveys of respectively 400 and 402 Oahu residents, October 24-November 10, 1988 and November 3-13, 1989]

Subject	1988	1989
Percent with a major credit card	71	73
Cards per holder	1.4	1.5

Source: Surveys by Omnitrak Research & Marketing Group, Inc., reported in *Honolulu Star-Bulletin*, February 20, 1990, p. D-1.

Table 430.-- FINANCE, INSURANCE, AND REAL ESTATE ESTABLISHMENTS WITH PAYROLL AND EMPLOYMENT: 1987

SIC code	Major group	Establishments	Employment
	Total	3,453	33,471
60	Banking	265	6,945
61	Credit agencies other than banks	424	3,988
62	Security, commodity brokers and services	54	617
63	Insurance carriers	258	3,187
64	Insurance agents, brokers and service	334	2,730
65	Real estate	1,935	12,788
66	Combined real estate, insurance, etc.	11	33
67	Holding and other investment offices	160	2,147
-	Administrative and auxiliary	12	1,036

Source: U.S. Bureau of the Census, *County Business Patterns 1987, Hawaii*, CBP-87-13 (November 1989), p. 1.

Table 431.-- HAWAII RESIDENTS HOLDING SHARES IN U.S. PUBLIC CORPORATIONS OR INVESTMENT COMPANIES: 1959 TO 1985

Year	Shareholders
1959	13,000
1962	18,000
1965	39,000
1970	74,000
1975	58,000
1980	175,000
1981	174,000
1983	234,000
1985	256,000

Source: New York Stock Exchange, Inc., Shareownership 1985, p. 24, and similar reports for earlier years.

Table 432.-- GENERAL EXCISE TAX BASE FOR INTEREST AND INSURANCE SOLICITORS: 1979 TO 1989

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Interest	Insurance solicitors
1979	133,242	174,676
1980	174,790	303,264
1981	205,989	255,321
1982	205,443	199,512
1983	184,895	214,972
1984	207,430	236,086
1985	206,256	167,438
1986	200,656	140,120
1987	258,015	198,442
1988 2/	230,817	160,936
1989 2/	269,093	184,310

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Data exclude tax base for unallocated collections, distributed before 1988.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 433.-- INSURANCE BUSINESS TRANSACTED IN HAWAII: 1983 TO 1988

[Includes data for all insurance companies, life or other, authorized in Hawaii]

Year	Number of companies authorized, Dec. 31	Premiums paid ($1,000)	Losses, claims and benefits paid ($1,000)	Cumulative net investments in Hawaii Dec. 31 1/ ($1,000)
1983	720	872,156	605,722	2,725,453
1984	730	967,105	530,200	2,704,084
1985	752	1,132,282	592,550	2,680,318
1986	752	1,307,192	611,105	3,060,664
1987	782	1,456,508	694,331	2,864,352
1988	805	1,484,743	787,603	3,082,836

1/ Does not include balances in Hawaii banks.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii (annual).

Table 434.-- LIFE INSURANCE BUSINESS TRANSACTED IN HAWAII: 1983 TO 1988

Year	Number of companies, 1/ Dec. 31	Face value of policies written 2/ ($1,000)	Insurance in force, Dec. 31 ($1,000)	Premiums ($1,000)	Losses, claims, and benefits paid ($1,000)
1983	390	6,230,150	26,133,708	227,848	141,096
1984	401	6,294,746	28,060,450	257,611	168,487
1985	417	6,965,896	30,478,068	302,554	199,101
1986	424	8,118,761	33,463,090	309,649	175,205
1987	446	8,202,902	37,429,250	354,952	217,871
1988	465	7,856,086	41,060,540	348,614	207,391

1/ Authorized in Hawaii, including fraternal benefit societies.

2/ Includes insurance revived, increased, or transferred.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii (annual), and records.

Table 435.-- INSURANCE PREMIUMS AND LOSSES PAID, BY CLASS OF INSURANCE: 1988

[Dollars]

Class of insurance	Premiums	Losses, claims, and benefits paid
All classes	1,484,742,629	787,603,144
Life 1/	344,830,409	206,117,422
Fraternal	3,784,062	1,273,089
Fire, marine, casualty, and miscell.:		
Accident and health	120,661,345	121,362,970
Fire	14,442,146	2,437,052
Allied lines 2/	8,875,495	1,458,457
Homeowners multiple peril	55,836,263	17,622,114
Commercial multiple peril	78,822,318	21,307,314
Private passenger auto no-fault	63,077,763	47,197,042
Other private passenger auto liability	163,606,417	103,560,039
Commercial auto no-fault	5,481,029	4,672,983
Other commercial auto liability	45,229,459	30,063,936
Private passenger auto physical damage	107,675,764	58,971,828
Commercial auto physical damage	13,844,415	6,268,783
Workers' compensation	225,140,887	111,059,044
Other liability	96,603,614	31,258,911
Medical malpractice	17,172,761	7,247,671
Financial Guaranty	-509,283	241,155
Glass	143,891	31,693
Burglary and theft	342,891	25,732
Boiler and machinery	1,721,035	871,387
Fidelity and surety	18,999,956	-4,768,164
Ocean marine	3,723,636	2,302,271
Inland marine	16,280,537	2,392,108
Earthquake	284,979	2,366
All other 3/	34,327,608	10,632,785
Surplus lines	44,343,232	3,993,156

1/ Excludes annuities and premiums for insurance on nonresidents.

2/ Includes extended coverage; tornado, windstorm and hail; sprinkler and water damage; explosion, riot and civil commotion; growing crops; flood; rain; and damage from aircraft and vehicle.

3/ Aircraft (all risks); title, credit, mortgage guaranty; livestock; farmowners multiple peril; contact lens.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii, 1989, p. 6.

Table 436.-- INSURANCE BUSINESS TRANSACTED IN HAWAII, BY LOCATION OF HOME OFFICE: 1988

[Money amounts in millions of dollars. For insurance companies authorized to do business in Hawaii]

Subject	All companies	Domestic companies 1/	Foreign companies 2/	Alien companies 3/ (U.S. business only)
Number of companies, Dec. 31 ...	805	20	767	18
Financial condition, Dec. 31:				
Assets	1,424,551.4	1,202.3	1,389,566.6	33,782.6
Liabilities exc. capital and surplus	1,271,890.3	938.1	1,239,058.8	31,893.4
Policyholder's surplus inc. capital	152,661.1	264.1	150,507.8	1,889.3
Capital	4,040.8	24.4	3,989.8	26.6
Net gain or loss	2,086.2	6.9	2,610.5	-531.1
Hawaii business:				
Direct premiums written	1,623.7	491.2	1,093.8	38.7
Claims and benefits paid	888.5	225.5	641.0	22.0
Investments in Hawaii, Dec. 31 4/	3,082.8	236.1	2,826.9	19.8
Mortgage loans (principal indebtedness)	874.5	119.5	751.7	3.3
Collateral loans (amount lent)	3.7	3.5	.2	-
State and county bonds 5/	684.8	21.4	663.4	-
Utilities stocks and bonds 5/	287.7	29.3	250.4	8.0
Industrial and misc. stocks and bonds 5/	1,007.1	55.4	943.4	8.3
Real estate 5/	225.0	6.9	217.9	.2
Balances in Hawaii banks	23.1	18.2	4.9	.03

1/ A domestic insurer is one formed under the laws of Hawaii.

2/ A foreign insurer is one formed under the laws of any State of the United States (including the District of Columbia and Commonwealth of Puerto Rico) other than Hawaii.

3/ An alien insurer is one formed under the laws of a nation other than the United States.

4/ Does not include balances in Hawaii banks.

5/ Market value less encumbrances for real estate.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii, 1989, pp. 10, 12, 14, 15, 38 and 39.

Table 437.-- HEALTH PLANS: 1986 TO 1989

Subject	1986	1987	1988	1989
BestCare: 1/				
Members covered, Dec. 31 2/	203	3,197	5,970	5,730
Premium revenue 3/ ($1,000)	49	1,573	2,948	3,214
Hawaii Medical Service Association: 4/				
Persons covered, Dec. 31 2/	567,287	555,394	557,594	577,725
Membership dues 3/ ($1,000)	378,387	433,826	485,955	566,655
Island Care:				
Persons covered, Dec. 31 2/	14,924	16,771	18,469	17,619
Membership dues 3/ ($1,000)	10,193	12,970	13,638	11,605
Kaiser Foundation Health Plan:				
Persons covered--2/				
Annual average	136,608	141,396	155,539	170,772
Dec. 31	137,146	147,067	162,060	176,298
Membership dues 3/ ($1,000)	90,287	102,719	108,191	130,744
Commercial carrier premiums for accident and health insurance ($1,000)	93,152	105,341	120,661	(NA)

NA Not available.
1/ Enrollment began August 1986.
2/ Subscribers and dependents, whether on a group or individual basis.
3/ Includes both employers' and employees' contributions.
4/ Includes both Straub Plan and Pacific Health.

Source: Data provided by BestCare, Hawaii Medical Service Association, Island Care, and Kaiser Foundation Health Plan, Inc.; Report of the Insurance Commissioner (annual).

Table 438.-- HEALTH INSURANCE COVERAGE OF PERSONS UNDER 65 YEARS OF AGE: 1986

[Excludes persons in the armed forces, members of their families, and persons living in group quarters, as well as those 65 years and over. Detail adds to more than indicated totals and sub-totals because of multiple coverage of some persons]

Subject	Persons under 65	Private coverage			Public coverage 1/	No health insurance 2/
		Total	Employer	Other private		
Number (1,000) ..	833	672	587	154	104	107
Percent	100.0	80.6	70.4	18.5	12.5	12.9

1/ Medicaid, Medicare, or CHAMPUS.

2/ For the nation as a whole, 17.8 percent of the nonelderly population was without health insurance. Among the 50 States (plus D.C.), Hawaii ranked 11th lowest in percent without coverage.

Source: Employee Benefit Research Institute, Uninsured in the United States: The Nonelderly Population Without Health Insurance, 1986 (1988), pp. 26-29. Based on the March 1987 Current Population Survey.

Table 439.-- FIRES AND FIRE LOSSES, FOR OAHU: 1980 TO 1990

[Years ended June 30]

Year	Fires	Losses ($1,000)	Year	Fires	Losses ($1,000)
1980	8,749	11,898	1986	4,367	9,172
1981	7,564	15,071	1987	4,835	9,582
1982	6,518	11,394	1988	2,966	6,632
1983	6,982	10,751	1989	3,327	13,272
1984	6,666	11,353	1990	3,487	18,972
1985	6,377	10,700			

Source: 1984-1985 Annual Report of the Fire Department, City and County of Honolulu, p. 26, and records.

Table 440.-- FIRES, FIRE DEATHS, AND FIRE LOSSES, BY COUNTIES: 1987 TO 1990

[Years ended June 30]

Subject and year	State total	Hono-lulu	Hawaii	Kauai	Maui
Number of fires:					
1987	6,036	4,835	558	205	438
1988	4,817	2,966	599	216	1,036
1989	5,137	3,327	625	245	940
1990	5,722	3,487	854	228	1,153
Fire deaths:					
1987	6	-	1	1	4
1988	7	5	-	2	-
1989	12	11	1	-	-
1990	4	3	1	-	-
Fire losses ($1,000):					
1987	14,010	9,582	2,599	290	1,539
1988	13,351	6,632	4,454	802	1,463
1989	19,546	13,272	3,384	707	2,183
1990	26,764	18,972	2,370	793	4,629

Source: Compiled by Hawaii State Department of Business, Economic Development & Tourism from Honolulu Fire Department, Hawaii County Fire Department, Kauai Fire Department, and Maui County Department of Fire Control.

Table 441.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS: 1977 TO 1987

[Data refer to establishments with taxable payrolls. Coverage excludes government and self-employed workers]

Year	Number of employees 1/	Payroll ($1,000)		Number of establishments, by employment-size class 2/		
		First quarter	Annual	Total	1 to 4	5 to 9
1977	263,079	630,090	2,637,726	18,660	9,942	3,741
1978	282,256	699,638	2,966,228	19,222	9,849	3,991
1979	302,763	809,676	3,451,980	20,621	10,568	4,285
1980	314,106	930,312	3,849,636	21,125	10,928	4,346
1981	312,195	984,003	4,092,561	21,264	10,969	4,337
1982	309,546	1,026,323	4,264,863	21,655	11,095	4,592
1983	308,627	1,094,458	4,505,090	24,519	13,320	5,039
1984	318,635	1,192,429	4,824,535	25,093	13,588	5,225
1985	331,196	1,268,106	5,271,750	25,742	14,058	5,261
1986	345,167	1,382,381	5,790,531	26,212	14,070	5,474
1987	363,491	1,506,971	6,304,798	27,281	14,508	5,705

Year	Number of establishments by employment-size class 2/--Con.						
	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 or more
1977	2,397	1,642	589	257	52	27	13
1978	2,695	1,721	602	264	57	28	15
1979	2,866	1,864	653	281	54	31	19
1980	2,868	1,906	666	311	55	26	19
1981	2,973	1,905	663	309	63	28	17
1982	2,921	2,005	648	296	56	24	18
1983	3,093	2,001	667	305	51	26	17
1984	3,167	1,990	709	313	52	34	15
1985	3,181	2,084	734	314	58	37	15
1986	3,306	2,128	784	331	68	33	18
1987	3,515	2,246	804	388	62	34	19

1/ For week including March 12.

2/ Data for 1983 and later years refer to establishments active anytime during the year; data for 1982 and earlier years refer to establishments in business at the end of the year.

Source: U.S. Bureau of the Census, County Business Patterns (annual).

Table 442.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY COUNTIES: 1986 AND 1987

[Excludes government employees and self-employed persons]

Year and county	Number of establishments 1/	Number of employees 2/	Payroll ($1,000)	
			First quarter	Annual
1986				
State total	26,212	345,167	1,382,381	5,790,531
Hawaii	2,716	26,639	90,502	369,845
Honolulu	19,561	274,517	1,136,476	4,758,710
Kauai	1,271	14,652	49,124	212,265
Maui	2,656	29,278	105,793	448,267
Statewide	8	81	486	1,444
1987				
State total	27,281	363,491	1,506,971	6,304,798
Hawaii	3,021	30,087	106,325	440,697
Honolulu	20,012	284,594	1,226,227	5,134,197
Kauai	1,372	15,692	53,326	222,057
Maui	2,867	33,019	120,595	506,368
Statewide	9	99	498	1,479

1/ Data refer to establishments active anytime during the year.

2/ For week including March 12.

Source: U.S. Bureau of the Census, County Business Patterns, 1987, Hawaii, CBP-87-13 (November 1989), p. 18.

Table 443.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY MAJOR INDUSTRY GROUP: 1986 AND 1987

[Excludes government and self-employed workers]

Major industry group	Number of establishments 1/	Number of employees 2/	Annual payroll ($1,000)
1986			
Total	26,212	345,167	5,790,531
Agricultural services, forestry, fisheries	231	1,759	23,516
Mining	15	172	5,475
Contract construction	1,742	18,417	507,934
Manufacturing 3/	1,007	20,988	415,480
Food and kindred products	221	8,208	159,513
Apparel and other textile products	197	3,837	42,237
Transportation, other public utilities	1,135	31,968	739,870
Wholesale trade	1,837	19,037	399,569
Retail trade 3/	6,959	96,074	1,050,293
Eating and drinking places	2,051	40,449	322,485
Finance, insurance, real estate	3,204	31,727	626,702
Services 3/	8,457	121,398	1,969,545
Hotels and other lodging places	261	33,067	515,285
Health services	1,997	23,251	518,393
Nonclassifiable establishments	1,625	3,627	52,148
1987			
Total	27,281	363,491	6,304,798
Agricultural services, forestry, fisheries	258	1,785	27,196
Mining	12	177	6,094
Contract construction	1,954	20,685	600,643
Manufacturing 3/	1,042	23,065	470,337
Food and kindred products	236	9,765	190,492
Apparel and other textile products	180	3,660	42,289
Transportation, other public utilities	1,211	34,087	834,019
Wholesale trade	1,985	20,226	443,421
Retail trade 3/	7,364	105,545	1,155,328
Eating and drinking places	2,200	44,733	358,948
Finance, insurance, and real estate	3,453	33,471	683,990
Services 3/	8,920	122,913	2,053,168
Hotels and other lodging places	252	30,317	430,360
Health services	2,063	23,623	561,440
Nonclassifiable establishments	1,082	1,537	30,602

Footnotes and source on next page.

Table 443.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY MAJOR INDUSTRY GROUP: 1986 AND 1987 - Con.

1/ Data refer to establishments active anytime during the year.
2/ For week including March 12.
3/ Includes subgroups not shown separately.
Source: U.S. Bureau of the Census, County Business Patterns, 1987, Hawaii, CBP-87-13 (November 1989), pp. 1-2.

Table 444.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY EMPLOYMENT-SIZE CLASS: 1987

[Excludes government employees and self-employed persons]

Employment-size class	Number of establishments	Number of employees	Annual payroll ($1,000)
Total	27,281	363,491	6,304,798
1 to 4	14,508	25,723	542,641
5 to 9	5,705	37,667	581,962
10 to 19	3,515	47,356	729,127
20 to 49	2,246	68,013	1,055,476
50 to 99	804	54,601	900,605
100 to 249	388	57,408	1,046,019
250 to 499	62	21,434	364,770
500 to 999	34	21,780	389,814
1,000 or more	1/ 19	29,509	694,384

1/ 1,000-1,499 employees, 11 establishments; 1,500-2,499, 6 establishments; 2,500-4,999, 2 establishments.
Source: U.S. Bureau of the Census, County Business Patterns, 1987, Hawaii, CBP-87-13 (November 1989), pp. 3, 13, and 17.

Table 445.-- REGISTERED CORPORATIONS AND PARTNERSHIPS: 1987 TO 1990

[Excludes eleemosynary corporations]

Subject	1987	1988	1989	1990
Domestic (Hawaii) corporations:				
Formed 1/	3,191	3,459	3,791	3,822
Dissolved or merged 2/	2,221	239	583	6,589
On record, June 30 3/	28,159	31,379	34,587	31,844
Foreign (non-Hawaii) corporations:				
Qualified 1/	626	692	812	858
Withdrawn, merged, or cancelled 2/	351	185	228	1,183
On record, June 30 3/	4,820	5,327	5,911	5,665
Partnerships:				
Registered 1/	1,392	1,367	1,409	1,575
Dissolved or cancelled 2/	1,297	645	688	3,098
On record, June 30 3/	8,971	9,693	10,414	8,311

1/ Annual totals for fiscal years ended June 30.

2/ Annual totals for fiscal years ended June 30. Annual fluctuations may partly reflect the sporadic purging of defunct firms from the registration files.

3/ Number on record may be inconsistent with data on components of change, reflecting inaccuracy in manual tabulation.

Source: Hawaii State Department of Commerce and Consumer Affairs, Business Registration Division, October 18, 1990.

Table 446.-- MAJOR CORPORATE FAMILIES HEADQUARTERED IN HAWAII: 1989

[Includes major ultimate parent companies headquartered in Hawaii and meeting the following criteria: Conduct business from two or more locations; net worth of $500,000 or more; controlling interest in one or more subsidiary companies]

Ultimate parent company	Affiliates 1/		Sales (million dollars)
	In Hawaii	On Mainland	
Parent companies with Mainland affiliates:			
Alexander & Baldwin, Inc.	5	5	536
Amelco Corporation	3	2	99
Persis Corporation	2	1	59
Waterhouse Properties, Inc.	1	1	20
Parent companies without Mainland affiliates (53 companies)	138	-	2/ 2,872

NA Not available.

1/ Excludes divisions but includes all subsidiary companies.

2/ Excludes sales of 16 companies not reporting sales.

Source: Dun & Bradstreet, Inc., Dun's Marketing Services, America's Corporate Families 1989, Vol. 1 (1989).

Table 447.-- CHARACTERISTICS OF CORPORATIONS, PARTNERSHIPS, AND PROPRIETORSHIPS: 1983, 1985, AND 1987

[Money amounts in millions of dollars]

Subject	1983	1985	1987
CORPORATIONS 1/			
Number of corporations	18,420	19,513	19,493
Taxable	8,040	8,708	9,404
Nontaxable	10,380	10,805	10,089
Business receipts	21,072	22,714.3	26,583
Taxable corporations	12,368	12,554.7	17,753
Nontaxable corporations	8,704	10,159.6	8,830
Taxable income, excluding net losses 2/	682.8	845.7	1,114.3
PARTNERSHIPS			
Number of partnerships	7,378	7,398	6,752
With net profit	3,453	3,389	3,697
With net loss	3,925	4,009	3,055
Number of partners	83,313	3/ 80,208	146,170
Business receipts	1,737.9	1,918.1	3,510.2
Businesses with net profit	1,065.8	1,294.0	2,800.5
Businesses with net loss	672.2	624.1	709.7
Net profit reported	358.1	431.1	906.0
Net loss reported	366.3	439.1	548.5
PROPRIETORSHIPS			
Number of proprietorships	54,182	59,475	61,733
With net profit	36,330	41,510	46,870
With net loss	17,852	17,965	14,863
Business receipts	1,236.2	1,579.1	1,767.7
Businesses with net profit	1,050.6	1,439.4	1,584.4
Businesses with net loss	185.7	139.7	183.3
Net profit reported	254.0	321.3	444.2
Net loss reported	63.9	53.3	66.4

1/ Includes domestic, foreign, and small business corporations.

2/ Includes taxable income reported by small business corporations, taxable to individual stockholders only.

3/ For Oahu only.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns, Corporation, Proprietorship, Partnership (biennial), and records.

Table 448.-- LARGEST PUBLIC AND PRIVATE CORPORATIONS: 1989

[Data may include sales and employment on the Mainland or abroad]

Rank	Company	Year founded 1/	Sales (million dollars	Employees
1	Castle & Cooke	1851	2,717.8	45,000
2	Pacific Resources Inc.	1904/1970	2,300	1,129
3	Hawaiian Electric Industries	1891/1983	884.1	3,146
4	Alexander & Baldwin	1870/1900	846.3	3,123
5	Bancorp Hawaii	1897/1971	761.5	3,700
6	Amfac	1849	711.7	9,300
7	DFS Hawaii	1962	600	1,450
8	Hawaii Medical Service Assn. (HMSA)	1938	567	1,050
9	Chevron USA Inc. (Hawaii Division)	1904	530	285
10	GTE Hawaiian Tel	1883	512.1	4,260

1/ If two years are given, the first is the founding date of the original company, the second is when it became a holding company, was sold, or legally changed its name.

Source: Tom Yoneyama, "The Hawaii Business Top 250," Hawaii Business, August 1990, pp. 78 and 80.

Table 449.-- NET INCOME OR LOSS AND TOTAL REVENUES OF SELECTED COMPANIES: 1988 AND 1989

[Based on 1989 ranks for reporting companies]

Company	Net income or loss ($1,000)		Revenues ($1,000,000)	
	1989	1988	1989	1988
Largest net incomes:				
Alexander & Baldwin	202,708	153,400	846.3	701.9
Castle & Cooke	94,924	112,282	2,717.8	2,469.0
Bancorp Hawaii	79,860	74,902	761.5	629.8
Largest net losses:				
HAL Inc.	46,930	8,755	348.9	354.0
AIG Hawaii Insurance Co., Inc.	70	389	(NA)	64.7

NA Not available.

Source: Tom Yoneyama, "The Hawaii Business Top 250," Hawaii Business, August 1990, p. 54.

Table 450.-- ENTERPRISES, ESTABLISHMENTS, AND EMPLOYMENT, BY EMPLOYMENT PER FIRM: 1986

[From Small Business Data Base. Excludes government employment. Covers approximately 93 percent of full-time business activity]

Employees per firm	Enterprises	Establishments	Establishment employment
Total	15,787	21,755	364,163
Under 20	13,629	14,699	72,910
20 to 499	2,089	4,611	126,972
500 and over	69	2,445	164,281

Source: U.S. Small Business Administration, Office of Advocacy, Handbook of Small Business Data 1988, pp. 107, 125, 141, and 157.

Table 451.-- NET JOB CHANGE, BY COMPONENTS OF CHANGE: 1976 TO 1986

[See headnote to preceding table]

Component of change	Number
Net job change	100,696
Percent increase	32.3
Births	193,447
Expansions	68,257
Contractions	36,518
Deaths	124,489

Source: U.S. Small Business Administration, Office of Advocacy, Handbook of Small Business Data 1988, p. 258.

Table 452.-- SMALL BUSINESS SHARE OF PRIME CONTRACT DOLLARS, BY MAJOR PRODUCER SERVICE CATEGORY: FISCAL YEAR 1987

[Data refer to contracts in which the principal place of performance is Hawaii]

Major producer service category	Amount to small business ($1,000)	Percent to small business
All products and services	264,969	50.9
Research and development	2,825	17.4
Construction	177,851	76.7
Other services	79,740	33.2
Supplies and equipment	4,583	14.6

Source: The State of Small Business: A Report of the President Transmitted to the Congress 1989, pp. 176-178.

Table 453.-- MINORITY-OWNED BUSINESSES: 1982 AND 1987

[Includes partnerships in which at least half of the partners were members of a specified minority group, and corporations in which 50 percent or more of the shares were owned by such persons]

Minority 1/	Number of firms		Sales and receipts ($1,000)	
	Total	With paid employees	Total	With paid employees
1982				
Black	330	23	5,857	3,209
Hispanic origin	759	58	17,913	11,634
American Indian	43	3	1,189	696
Asian Indian	74	26	1,585	1,174
Chinese	4,369	556	538,131	477,987
Japanese	17,327	1,852	1,104,690	904,563
Korean	1,240	185	59,291	41,363
Vietnamese	126	5	1,677	485
Other Asian	155	43	220,528	218,452
Filipino	3,341	157	50,446	20,781
Hawaiian 2/	2,077	167	44,113	23,337
Other Pacific Islander	169	60	395,418	387,272
Other minorities	119	6	2,368	1,396
1987				
All firms	60,928	10,589	3/ 6,522	3/ 5,342
Black	399	52	12,310	7,429

1/ Persons of mixed race were instructed to report the race with which they most closely identified. Whites (Caucasians), although only 34.4 percent of the 1980 population of Hawaii, were treated as the "majority" group for census purposes.

2/ For the United States as a whole, Hawaiians owned 3,305 firms (291 with paid employees) with sales and receipts of $85,579,000 ($48,714,000 for those with paid employees).

3/ In millions of dollars.

Source: U.S. Bureau of the Census, 1982 Survey of Minority-Owned Business Enterprises, MB82-1, Black (August 1985), p. 19; MB82-2, Hispanic (September 1986), p. 48; and MB82-3, Asian Americans, American Indians, and Other Minorities (October 1986), pp. 5 and 58; and 1987 Survey of Minority-Owned Business Enterprises, MB87-1, Black (July 1990), tables 2 and 11.

Table 454.-- WOMEN-OWNED BUSINESSES: 1987

Subject	Total firms	Women-owned firms 1/	Percent women-owned 1/
All firms:			
Number	60,928	21,696	35.6
Sales and receipts 2/	$6,522	$856,930	13.1
Firms with paid employees:			
Number	10,589	2,404	22.7
Sales and receipts 2/	$5,342	$546,087	10.2
Employees	65,058	9,548	14.7
Annual payroll 2/	$913	$105,425	11.5

1/ A firm is classified as women-owned if the sole proprietor or at least half of the partners or shareholders were women.

2/ Dollar amounts in millions for total firms and thousands for women-owned firms.

Source: U.S. Bureau of the Census, 1987 Economic Censuses, WB87-1, Women-Owned Businesses (August 1990), tables 2 and 11.

Table 455.-- BUSINESS CLIMATE INDEXES: 1988 TO 1990

Index	Rank 1/			Grade		
	1988	1989	1990	1988	1989	1990
Economic performance	12	2	2	B	A	A
Business vitality	35	38	38	C	D	D
Development capacity	15	13	13	B	B	B
State policy	39	24	34	D	C	C

1/ Among the 50 States.

Source: The Corporation for Enterprise Development, Making the Grade: The 1988 Development Report Card for the States (April 1988), The 1989 Development Report Card for the States (March 1989), and The 1990 Development Report Card for the States (April 1990).

Table 456.-- ENTREPRENEURIAL GROWTH INDEX RANKINGS, FOR THE STATE AND HONOLULU: 1986 TO 1990

[Based on job growth, business starts, and proportion of high-growth new companies]

Area	1986	1987	1988	1989	1990
State of Hawaii 1/	34	20	17	12	...
Honolulu metropolitan area 2/	...	...	83	93	32

1/ Rank among 50 States.
2/ Rank of Honolulu among 192 metropolitan areas.
Source: Inc., October 1986 (pp. 57-66), October 1988 (pp. 79-81), March 1989 (pp. 90-102), October 1989 (pp. 85-87), and March 1990 (pp. 41-48).

Table 457.-- BUSINESS INCORPORATIONS AND FAILURES, NUMBER AND RANK: 1988 AND 1989

Subject	1988	1989	Percent change	Rank 1/ 1988	Rank 1/ 1989	Rank 1/ Percent change
Incorporations	3,199	3,780	18.2	39	36	3
Failures	179	167	-6.7	42	39	32

1/ 50 States and D.C.
Source: Dun and Bradstreet Corp. data cited by U.S. Small Business Administration, Office of Advocacy, tabular release.

Table 458.-- BUSINESS STARTS, 1986 AND 1987, AND FAILURES, 1987 AND 1988 BY INDUSTRY SECTOR AND LOCATION

Location and industry sector	Starts		Failures	
	1986	1987	1987	1988 1/
Firms, State total	1,071	997	176	179
Honolulu	594	573	99	77
Rest of State	477	424	77	102
Employment, State total	6,680	6,211	(NA)	(NA)
Honolulu	3,944	3,516	(NA)	(NA)
Rest of State	2,736	2,695	(NA)	(NA)
Firms, all sectors	1,071	997	176	179
Agriculture, forestry, fishing	31	20	2	2
Mining	-	-	-	-
Construction	104	83	16	11
Manufacturing	83	80	5	2
Transportation, public utilities	52	47	5	5
Wholesale trade	133	108	11	11
Retail trade	326	370	35	18
Finance, insurance, real estate	56	62	6	3
Services	285	221	92	126
Unclassifiable	1	6	4	1

NA Not available.

1/ Preliminary.

Source: The Dun & Bradstreet Corporation, Business Starts Record 1986/1987 (1988), pp. 3 and 16, and Business Failure Record 1987 Final 1988 Preliminary (1989), pp. 4, 5, and 16.

Section 16

COMMUNICATIONS

This section presents statistics on the usage, finances, and operations of the Postal Service and of various communications media: telephone, radio, television, newspapers, periodicals, and books. Sections 12 and 15 contain employment and payroll data for communications establishments.

Hawaii is served by all major communications media. In 1990 it had 144 post offices and stations handling 463 million pieces of mail and accounting for postal receipts of $136 million. There were 556,000 telephone access lines in service, 385,000 telephone homes, about 2.6 billion local calls originated, and uncounted millions of interisland and transpacific calls in 1989. The 52 commercial, public and educational radio stations in the Islands in 1990 included 28 on the regular broadcast band and 24 FM stations. The State also had 21 television stations (19 commercial and 2 public), including satellites but excluding translators. Eight cable TV companies served 293,000 subscribers. An estimated 97 percent of all households in the State had television sets, and the average prime-time TV audience in May 1990 numbered 174,000 households. Island publishers printed nine daily newspapers, numerous magazines and other periodicals, and a wide diversity of books. Newspaper circulation reported by the two English-language dailies on Oahu averaged 191,000 in 1989-1990. Statistics on fax machines and cellular telephones are unavailable.

The major sources for statistics on communications are the reports and records of the U.S. Postal Service, Federal Communications Commission, the CATV Division of the Hawaii State Department of Commerce and Consumer Affairs, Hawaiian Telephone Company, Audit Bureau of Circulations, and A. C. Nielsen Co. Earlier figures appear in Historical Statistics of Hawaii, Section 18. Data on communications for other states and for the nation as a whole are carried in Statistical Abstract of the United States: 1990, Section 18.

Table 459.-- POSTAL SERVICE: 1970 TO 1990

[For fiscal years ended June 30 through 1976 and
September 30 thereafter]

Fiscal year	Number, end of fiscal year 1/		Gross postal receipts ($1,000)	Pieces of mail 2/ (millions)
	Post offices	Stations		
1970	80	...	20,840	187
1971	80	...	21,976	201
1972	78	...	23,434	215
1973	77	...	27,100	226
1974	76	...	29,663	233
1975	76	...	33,549	238
1976	76	...	37,433	242
1977	76	...	43,790	249
1978	76	...	49,198	267
1979	76	...	55,267	276
1980	76	...	58,413	298
1981	76	...	67,055	293
1982	76	...	77,424	290
1983	76	3/ 50	80,943	305
1984	76	4/ 54	84,733	317
1985	76	64	94,975	339
1986	76	67	102,440	360
1987	75	69	107,946	394
1988	75	72	119,740	400
1989	74	74	129,177	434
1990	74	70	136,087	463

1/ Includes all 1st-, 2nd-, 3rd-, and 4th-class post offices and both classified and contract stations (classified stations are those staffed by career postal employees; contract stations, those operated under a contractual agreement between the Postal Service and an individual contractor). Station counts not available before 1983.

2/ Originating in Hawaii. Mail originating elsewhere is excluded.

3/ April 15.

4/ June 30.

Source: U.S. Postal Service, Honolulu Division, records.

Table 460.-- NUMBER OF POST OFFICES AND STATIONS, BY ISLANDS: OCTOBER 19, 1990

Island	Total	Post offices			Stations	
		1st class	2nd class	3rd class	Classified 1/	Contract 2/
State total ..	144	34	28	12	34	36
Hawaii	36	9	13	4	2	8
Maui	17	8	2	-	2	5
Lanai	1	-	1	-	-	-
Molokai	5	1	-	4	-	-
Oahu	65	12	4	1	28	20
Kauai	20	4	8	3	2	3
Niihau	-	-	-	-	-	-

1/ Staffed by career postal employees.

2/ Operated under a contractual agreement between the Postal Service and an individual contractor.

Source: U.S. Postal Service, Honolulu Division, data supplied October 19, 1990.

Table 461.-- RESIDENCES, POST OFFICE BOXES, AND BUSINESSES SERVED BY THE U.S. POSTAL SERVICE, BY ISLANDS: 1987

[As of September 15]

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Residences ...	310,529	23,743	23,282	-	165	257,465	5,874
P. O. boxes ..	93,974	26,307	13,966	876	1,703	37,098	14,024
Businesses ...	27,049	2,843	2,948	-	-	20,309	949

Source: U.S. Postal Service, San Mateo Postal Data Center, records.

Table 462.-- TELEPHONE ACCESS LINES, BY ISLAND AND TYPE: 1981 TO 1989

[As of December 31. Access lines represent the lines connecting customers to the network regardless of the ownership of the customer premises equipment. Business access includes key and coin system lines]

Year	All access lines	By island		By type		
		Oahu	Other islands	Residence	Business	Other types
1981	431,893	324,968	106,925	314,355	95,000	22,538
1982	445,452	334,150	111,302	323,588	98,691	23,173
1983	458,339	342,094	116,245	332,051	102,923	23,365
1984	472,229	348,936	123,293	339,296	107,830	25,103
1985	479,253	352,674	126,579	342,296	111,792	25,165
1986	493,079	362,083	130,996	350,790	118,002	24,287
1987	520,057	380,227	139,830	363,951	128,197	27,909
1988	530,022	395,685	134,337	375,238	123,409	31,375
1989	555,966	409,904	146,062	385,247	133,620	37,099

Source: GTE Hawaiian Telephone Company, data provided June 12, 1990.

Table 463.-- RESIDENTIAL TELEPHONES IN SERVICE, BY ISLANDS: 1989

[Estimates based on 1987 survey data reporting 1.74 telephones per residence access line]

Islands	Telephones
State total	670,330
Oahu	494,611
Other islands	175,710

Source: GTE Hawaiian Telephone Company, data provided June 12, 1990.

Table 464.-- LOCAL TELEPHONE CALLS: 1979 TO 1989

[In thousands. Data for 1989 are estimates]

Year	Originating	Completed	Year	Originating	Completed
1979	1,830,954	1,186,458	1985	2,225,943	1,669,457
1980	1,957,427	1,468,070	1986	2,350,538	1,671,233
1981	1,857,938	1,393,454	1987	2,404,035	1,718,885
1982	1,892,430	1,419,322	1988	2,514,066	1,810,128
1983	1,928,486	1,446,365	1989	2,615,991	1,883,514
1984	2,050,778	1,538,084			

Source: GTE Hawaiian Telephone Company, records.

Table 465.-- HAWAIIAN TELEPHONE COMPANY OPERATIONS: 1987 TO 1989

Subject	1987	1988	1989
Operating revenues ($1,000)	458,361	494,590	512,144
Net income ($1,000)	55,091	49,520	48,340
Investment in telephone plant ($1,000) ..	1,369,130	1,365,093	1,432,328
Total assets ($1,000)	1,034,040	1,032,628	1,068,215
Invested capital ($1,000)	699,544	707,305	734,568
Access lines	517,937	543,303	612,286
Central offices	96	80	82
Miles of wire	3,365,412	3,452,497	3,534,481
Average daily local calls	6,614,688	6,872,612	7,148,000
Total salaries and wages ($1,000)	146,136	154,198	146,099
Number of employees	4,485	4,189	4,260

Source: GTE Hawaiian Tel 1989 Annual Report, p. 22.

Table 466.-- CABLE TELEVISION COMPANIES, SUBSCRIBERS, AND REVENUES: 1970 TO 1989

Subject	1970	1975	1980	1985	1989
Companies, Dec. 31	6	10	10	9	8
Subscribers, Dec. 31 (1,000)	12.1	54.6	128.7	220.4	292.6
Revenue 1/ (mil. dol.)	...	...	16.2	33.0	52.4

1/ Gross revenue 1980, and basic service revenue thereafter.

Source: Hawaii State Department of Commerce and Consumer Affairs, Cable Television Division, records.

Table 467.-- CABLE TELEVISION COMPANIES, SUBSCRIBERS, AND REVENUES, BY COUNTIES: 1988 AND 1989

County	Number of companies Dec. 31 1/		Subscribers, Dec. 31		Basic service revenue ($1,000)	
	1988	1989	1988 2/	1989	1988	1989
State total	8	8	285,465	292,638	43,416	52,448
Hawaii	3	3	24,867	26,248	3,897	5,486
Maui	2	2	36,603	36,825	3,971	5,910
Honolulu	2	2	212,672	217,415	33,063	38,281
Kauai	2	2	11,323	12,150	2,485	2,772

1/ State totals are unduplicated figures; one company provided service to both Hawaii and Maui Counties.

2/ Revised from Data Book 1989, table 451.

Source: Hawaii State Department of Commerce and Consumer Affairs, Cable Television Division, records.

Table 468.-- RADIO AND TELEVISION BROADCASTING STATIONS IN OPERATION, 1930 TO 1990, AND BY COUNTIES, 1990

Date and county	Commercial stations			Non-commercial stations		
	AM	FM	TV 1/	AM	FM	TV 1/
1930: Jan. 1	1	-	-	-	-	-
1945: Jan. 1	4	-	-	-	-	-
1960: Jan. 1	17	1	7	-	2	-
1975: Jan. 1	26	5	10	-	1	2
1990: June 30	28	21	19	-	3	2
COUNTIES: 1990						
Hawaii	5	4	6	-	-	-
Maui	3	6	4	-	1	1
Honolulu 2/	18	9	9	-	2	1
Kauai	2	2	-	-	-	-

1/ Includes satellites but excludes translators and cable television.

2/ Includes one commercial AM station with studio on Oahu but transmitter on Molokai.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 482; Federal Communications Commission, Field Operations Bureau, Honolulu, July 30, 1990.

Table 469.-- TELEVISION HOUSEHOLDS, BY GEOGRAPHIC AREA: 1989 AND 1990

Subject	January 1989			January 1990		
	State total	Oahu	Other islands	State total	Oahu	Other islands
All households	351,800	267,200	84,600	361,400	273,300	88,100
With television .	341,810	260,600	81,210	350,920	266,440	84,480
Percent	97.2	97.5	96.0	97.1	97.5	95.9

Source: Nielsen Station Index, Honolulu, Hawaii, February 1989 and February 1990, table 1.

Table 470.-- HOUSEHOLDS AND PERSONS VIEWING TELEVISION BY TIME OF DAY: 1988 TO 1990

[In thousands. Mean number of viewers, Sunday through Saturday]

Year and month	Sign-on to sign-off 7 A.M. to 1 A.M.		Prime time 6:30 P.M. to 10 P.M.	
	Households 1/	Persons 2/	Households 1/	Persons 2/
1988: Feb.	90	150	198	374
May	88	145	184	345
Nov.	89	143	179	319
1989: Feb.	91	143	195	343
May	84	134	178	324
Nov.	89	137	180	310
1990: Feb.	88	145	190	353
May	84	129	174	301

1/ Average number with a TV set turned on.

2/ Average number of persons, 2 years and older, in TV households that are viewing any station.

Source: Nielsen Station Index, Honolulu, Hawaii, Daypart Summary, issued three times annually.

Table 471.-- COMMUNICATION AND COMMUNICATION-RELATED ESTABLISHMENTS: 1987

SIC code	Industry	No. of establishments	SIC code	Industry	No. of establishments
27	Printing and publishing	192	482	Telegraph communication	4
271	Newspapers	20	483	Radio, TV broadcast ...	37
272	Periodicals	18	489	Commun. services, n.e.c	34
273	Books	11	5942	Book stores	59
274	Miscell. publishing .	15	731	Advertising	70
48	Communication	102	7311	Advertising agencies	56
481	Telephone communication	26			

Source: U.S. Bureau of the Census, County Business Patterns 1987, Hawaii, CBP-87-13 (November 1989), table 10.

Table 472.-- BOOKS AND SCHOLARLY JOURNALS PUBLISHED BY THE UNIVERSITY OF HAWAII PRESS: 1988 TO 1990

Year	Published titles 1/		New books and journals published 3/		Volumes sold 3/	Book sales revenues 3/ (dollars)
	Cumulative total 2/	In print	Books	Scholarly journals		
1988	868	672	42	6	324,185	1,962,537
1989	918	701	50	9	402,606	2,222,341
1990	971	703	53	13	422,266	2,591,790

1/ As of June 30. Excludes journals.
2/ Includes books and other media, but not journals.
3/ Year ended June 30.
Source: The University of Hawaii Press, Annual Report (annual) and records.

Table 473.-- AVERAGE PAID CIRCULATION OF DAILY AND SUNDAY ENGLISH-LANGUAGE NEWSPAPERS: 1986-87 TO 1989-90

[Averages for 12-month periods ended in March. Foreign-language daily newspapers, not included in this table, are the Hawaii Hochi, Japanese and English; The Korea Times and Han Kook Ilbo, Korean; and United Chinese Press, Chinese]

Newspaper	1986-87	1987-88	1988-89	1989-90
Daily:				
Honolulu Advertiser 1/	88,551	93,088	98,025	98,400
Honolulu Star-Bulletin 2/	99,724	97,950	96,074	92,811
Hawaii Tribune-Herald (Hilo) 3/	20,290	20,328	20,360	20,354
West Hawaii Today (Kailua-Kona) 4/	8,298	8,820	9,757	10,781
Maui News (Wailuku) 3/	15,199	15,805	16,722	17,861
Garden Island (Lihue) 5/	9,500	9,525	8,737	8,664
Sunday morning:				
Sunday Star-Bulletin and Advertiser	199,684	203,358	203,752	200,798
Hawaii Tribune-Herald (Hilo)	22,944	23,209	23,146	23,291
West Hawaii Today (Kailua-Kona)	8,273	8,961	10,025	11,576
Maui News (Wailuku)	15,117	16,326	17,660	19,405
Garden Island (Lihue)	9,300	9,528	8,899	9,157

1/ Mornings, Monday through Saturday.
2/ Afternoons, Monday through Saturday.
3/ Afternoons, Monday through Friday.
4/ Mornings, Monday through Friday.
5/ Afternoons, 4 times weekly (Monday, Wednesday, Thursday, and Friday).

Source: Audit Bureau of Circulations data provided to DBED by newspaper publishers.

Table 474.-- POSTAGE RATES AND NEWSPAPER PRICES, FOR HONOLULU: 1980 TO 1990

[In cents. As of July 1]

Year	Domestic first-class postage rates			Newspaper price 1/	
	Letters		Postal and post cards		
	First ounce	Each added ounce		Daily	Sunday
1980	15	13	10	25	60
1981	18	17	12	25	75
1982	20	17	13	25	100
1983	20	17	13	25	100
1984	20	17	13	25	100
1985	22	17	14	35	100
1986	22	17	14	35	100
1987	22	17	14	35	100
1988	25	20	15	35	125
1989	25	20	15	35	125
1990	25	20	15	35	125

1/ Street sales, for the Honolulu Advertiser, Honolulu Star-Bulletin, and Sunday Star-Bulletin and Advertiser.

Source: Postal rates from Statistical Abstract of the United States: 1989, p. 543, as updated by Postal Service Customer Information. Newspaper rates from Hawaii Newspaper Agency.

Table 475.-- HAWAIIAN TELEPHONE COMPANY RATES FOR SPECIFIED TYPES OF SERVICE, FOR HONOLULU: 1980 TO 1990

[In dollars. As of July 1. Including state and federal excise tax where applicable]

Year	Local call, pay phone	Honolulu to Hilo		Honolulu to California		Monthly charge, indiv. res. line 3/
		Direct dialing 1/	Through operator 2/	Direct dialing 1/	Through operator 2/	
1980 ..	0.15	1.06	1.89	1.64	2.60	11.63
1981 ..	0.15	1.06	1.89	1.64	2.60	11.63
1982 ..	0.15	1.05	1.87	1.74	2.63	11.51
1983 ..	0.15	1.07	1.91	1.77	3.37	11.31
1984 ..	0.15	1.07	1.91	1.66	3.25	11.74
1985 ..	0.15	1.14	2.06	1.54	3.13	12.77
1986 4/	0.25	1.45	2.06	1.32	2.91	14.10
1987 4/	0.25	1.11	2.00	0.98	2.53	14.10
1988 4/	0.25	1.04	2.00	0.92	2.47	14.10
1989 4/	0.25	1.00	2.00	0.76	3.26	14.10
1990 4/	0.25	0.98	2.00	0.78	3.50	14.10

1/ Daytime calls, first three minutes.

2/ Station-to-station operator-handled daytime weekday calls, first three minutes.

3/ Telephone rental included through February 5, 1983, and excluded thereafter. In 1990, the monthly rental charge for a standard dial desk-top telephone was $2.70, and the federal subscriber line charge was $3.20.

4/ AT&T Communications, Inc., rates quoted for Honolulu to California calls.

Source: Hawaiian Telephone Company, records, and AT&T Communications, Inc., records.

Section 17

ENERGY AND SCIENCE

This section presents statistics on energy production and consumption, the electric and gas utility industries, research and development, and scientific resources. Related series are cited in Sections 12 (on utility employment), 14 (prices), and 18 (gasoline consumption).

Total energy consumption in 1988 amounted to 266 trillion British thermal units, compared with 236 trillion Btu a decade earlier. Transportation, including aviation fuels, accounted for 54 percent of the 1988 total. Total expenditures for fuels and electricity in 1988 were $1.66 billion.

Electricity sales amounted to 8.0 billion kilowatt-hours in 1989, a total that has increased 29 percent since 1979. Manufactured gas sales reached 34 million therms in 1989, four percent below the figure ten years earlier. Residential rates in 1989 averaged 9.3 cents per kilowatt-hour and $1.54 per therm, both significantly less than the corresponding rates a few years earlier. Average residential use (7,169 kWh and 192 therms in 1989) has declined since the early 1970s. By 1987, over 10 percent of the housing units in the State had solar heating devices.

The liquid fuel tax base for 1989 was approximately 1.3 billion gallons, compared with 961 million in 1979. The 1989 total included 369 million gallons of gasoline, 733 million of aviation fuel, and 160 million of diesel oil. The average price for automotive gasoline was $1.36 per gallon during 1989.

The State is well served with scientific resources. Especially noteworthy is the cluster of large telescopes used for astronomical observations at the summits of Mauna Kea and Haleakala--twelve major facilities, including those under construction. Federal research and development obligations in Hawaii totaled $82 million in 1988. Seventy-four patents were granted to Hawaii residents in 1989.

Information on energy and science can be obtained from reports and records of the U.S. Department of Energy, U.S. Patent and Trademark Office, U.S. Bureau of Labor Statistics, National Science Foundation, Hawaii State Department of Taxation, Hawaii State Department of Commerce and Consumer Affairs and its Division of Consumer Advocacy, the DBED Energy Division, UH Institute for Astronomy, and individual utility companies. *Historical Statistics of Hawaii*, Section 19, presents data for earlier years. Data for the nation as a whole can be found in the *Statistical Abstract of the United States: 1990*, Sections 19 and 20.

Table 476.-- CONSUMPTION OF ENERGY, BY SOURCE (PHYSICAL UNITS): 1960 TO 1988

Year	Petroleum 1/ (1,000 barrels)	Hydro-electric power 2/ (million kWh)	Geothermal energy (million kWh)	Coal (1,000 short tons)	Other 3/ (million kWh)
1960	17,497	27	0	0	0
1961	20,721	24	0	0	0
1962	19,733	20	0	0	0
1963	20,705	23	0	0	0
1964	22,117	115	0	0	0
1965	23,177	105	0	0	0
1966	25,804	112	0	0	2
1967	29,081	108	0	0	0
1968	32,363	94	0	0	30
1969	33,815	100	0		29
1970	34,768	108	0	0	24
1971	37,416	89	0	0	15
1972	38,372	91	0	0	18
1973	39,339	95	0	0	22
1974	37,265	92	0	0	30
1975	37,588	89	0	0	25
1976	37,990	93	0	0	29
1977	40,249	86	0	0	26
1978	40,851	84	0	0	0
1979	44,594	90	0	0	0
1980	43,505	86	0	0	0
1981	38,721	80	0	0	15
1982	35,637	90	0	47	26
1983	36,297	84	0	42	28
1984	36,932	82	21	38	28
1985	39,351	86	19	46	25
1986	38,905	78	18	16	0
1987	39,459	82	13	63	0
1988	44,810	81	16	50	0

1/ For data by type of petroleum, see source.

2/ Includes industrial and electric utility production.

3/ Wood, waste, wind, photovoltaic, and solar thermal energy sources consumed at electric utilities to produce electricity. Excludes natural gas and nuclear electric power.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1988 (April 1990), p. 93.

Table 477.-- CONSUMPTION OF ENERGY, BY SOURCE (TRILLION BTU):
1960 TO 1988

Year	Total energy consumed	Petroleum 1/	Hydroelectric power 2/	Geothermal energy	Coal	Natural gas	Other types 3/
1960	98.4	98.1	0.3	0.0	0.0	0.0	0.0
1961	117.3	117.0	0.3	0.0	0.0	0.0	0.0
1962	112.2	112.0	0.2	0.0	0.0	0.0	0.0
1963	118.3	118.0	0.2	0.0	0.0	0.0	0.0
1964	127.9	126.7	1.2	0.0	0.0	0.0	0.0
1965	134.2	133.1	1.1	0.0	0.0	0.0	0.0
1966	149.1	147.9	1.2	0.0	0.0	0.0	(Z)
1967	168.1	167.0	1.1	0.0	0.0	0.0	0.0
1968	187.3	186.0	1.0	0.0	0.0	0.0	0.3
1969	194.8	193.5	1.0	0.0	0.0	0.0	0.3
1970	200.4	199.0	1.1	0.0	0.0	0.0	0.3
1971	215.1	214.0	0.9	0.0	0.0	0.0	0.2
1972	221.0	219.9	0.9	0.0	0.0	0.0	0.2
1973	226.7	225.5	1.0	0.0	0.0	0.0	0.2
1974	214.6	213.3	1.0	0.0	0.0	0.0	0.3
1975	216.7	215.5	0.9	0.0	0.0	0.0	0.3
1976	219.3	218.0	1.0	0.0	0.0	0.0	0.3
1977	232.6	231.5	0.9	0.0	0.0	0.0	0.3
1978	236.0	235.2	0.9	0.0	0.0	0.0	0.0
1979	255.9	255.0	0.9	0.0	0.0	0.0	0.0
1980	253.2	249.3	0.9	0.0	0.0	3.0	0.0
1981	226.4	222.6	0.8	0.0	0.0	2.8	0.2
1982	208.5	203.3	0.9	0.0	1.1	2.8	0.3
1983	210.3	205.4	0.9	0.0	1.0	2.7	0.3
1984	218.7	213.8	0.8	0.4	0.9	2.4	0.3
1985	233.3	227.9	0.9	0.4	1.1	2.7	0.3
1986	230.9	226.7	0.8	0.4	0.4	2.7	0.0
1987	234.6	229.1	0.8	0.3	1.6	2.8	0.0
1988	265.9	260.6	0.8	0.3	1.3	2.8	0.0

Z Less than 0.05.

1/ For data by type of petroleum, see source.

2/ Includes industrial and electric utility production.

3/ Wood, waste, wind, photovoltaic, and solar thermal energy sources consumed at electric utilities to produce electricity.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1988 (April 1990), p. 93.

Table 478.-- CONSUMPTION OF ENERGY BY END-USE SECTOR: 1960 TO 1988

[Trillion Btu]

Year	Consumption 1/				Input at electric utilities
	Residential	Commercial	Industrial	Transportation	
1960	7.3	5.2	20.7	65.2	17.6
1961	7.5	5.4	26.9	77.4	19.4
1962	8.0	5.5	28.9	69.8	21.4
1963	8.9	6.0	29.8	73.5	24.2
1964	9.6	6.6	32.4	79.2	26.7
1965	10.1	6.8	34.7	82.6	27.6
1966	10.8	7.4	35.8	95.1	29.7
1967	12.1	8.0	38.8	109.2	31.3
1968	13.1	8.8	38.7	126.7	35.0
1969	14.9	9.8	40.8	129.2	38.7
1970	16.4	11.6	43.6	128.8	43.2
1971	17.8	11.4	43.5	142.4	47.7
1972	19.6	12.7	48.9	139.8	54.1
1973	20.0	13.5	49.4	143.8	55.6
1974	20.3	13.3	49.4	131.7	57.5
1975	19.6	13.8	49.9	133.4	58.8
1976	21.3	15.3	51.0	131.7	62.5
1977	21.8	16.8	52.7	141.3	65.2
1978	21.8	17.4	52.2	144.6	66.8
1979	22.9	18.1	58.5	156.4	67.7
1980	23.2	20.8	62.4	146.7	69.7
1981	23.0	18.8	60.6	124.1	69.9
1982	21.5	17.6	67.1	102.2	66.9
1983	22.1	17.8	52.6	117.9	68.6
1984	21.0	19.4	46.6	131.7	70.6
1985	20.8	20.2	47.4	144.9	70.0
1986	21.4	22.7	57.4	129.4	72.9
1987	22.9	29.0	57.0	125.7	76.6
1988	24.0	36.1	62.3	143.5	81.9

1/ Excludes small quantities of energy sources for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at the electric utilities.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1988 (April 1990), pp. 94-98.

Table 479.-- PER CAPITA ENERGY CONSUMPTION, RESIDENT AND DE FACTO: 1960 TO 1988

[For definitions of resident and de facto population, see table 3, footnotes 1 and 3]

Year	Total energy consumed (trillion Btu)	Electricity sales (1,000 kWh)	Per capita consumption			
			Total energy (million Btu)		Electricity (kWh)	
			De facto	Resident	De facto	Resident
1960	99.15316	1,602,197	152.3	154.6	2,460	2,498
1961	116.97162	1,766,031	175.0	177.6	2,643	2,681
1962	111.79039	1,966,105	161.2	163.6	2,834	2,876
1963	117.84984	2,077,571	169.7	172.7	2,991	3,045
1964	127.23438	2,284,275	178.9	181.8	3,212	3,264
1965	132.72839	2,445,025	185.5	188.6	3,418	3,474
1966	147.99105	2,639,866	204.2	208.3	3,643	3,716
1967	167.45867	2,832,469	225.5	231.8	3,814	3,920
1968	186.50628	3,109,256	245.8	253.9	4,097	4,233
1969	193.83665	3,426,052	248.9	258.4	4,399	4,567
1970	198.62790	3,758,094	248.7	257.4	4,706	4,870
1971	213.94859	4,167,127	256.8	266.9	5,002	5,198
1972	219.48417	4,562,568	252.3	265.0	5,245	5,508
1973	224.98611	4,867,850	249.6	264.2	5,401	5,716
1974	213.57387	5,113,906	231.2	246.1	5,536	5,892
1975	238.35719	5,334,755	252.6	269.0	5,654	6,020
1976	240.51954	5,615,210	247.9	266.0	5,787	6,210
1977	254.54840	5,831,610	256.5	277.2	5,877	6,351
1978	259.11475	6,004,891	255.5	278.1	5,920	6,446
1979	278.45009	6,197,426	267.0	292.1	5,944	6,501
1980	273.88094	6,345,531	259.4	282.7	6,010	6,549
1981	273.32263	6,424,016	256.8	278.8	6,035	6,554
1982	272.11290	6,332,707	250.0	272.8	5,819	6,348
1983	279.03031	6,425,578	250.2	273.9	5,762	6,308
1984	276.36995	6,606,255	242.7	266.8	5,802	6,377
1985	266.21778	6,635,158	231.6	253.2	5,773	6,310
1986	271.05620	7,025,739	229.9	254.6	5,959	6,599
1987	282.71678	7,298,178	235.8	261.2	6,088	6,742
1988	312.77000	7,719,029	256.6	284.8	6,333	7,029

Source: Hawaii State Department of Business and Economic Development, State Energy Resources Coordinator Annual Report, July 1, 1987 to June 30, 1988, tables 21 and 23, and records.

Table 480.-- ENERGY CONSUMPTION, BY SOURCE: 1960 TO 1988

[Trillion Btu]

Year	Total	Petroleum	Biomass	Solar water heating	Hydro-electricity	Coal	Wind	Geo-thermal
1960 ...	120.4982	98.8532	21.3450	-	0.3000	-	-	-
1961 ...	141.3156	116.6716	24.3440	-	0.3000	-	-	-
1962 ...	137.1934	111.5904	25.4030	-	0.2000	-	-	-
1963 ...	143.8698	117.6498	26.0200	-	0.2000	-	-	-
1964 ...	153.9604	126.0344	26.7260	-	1.2000	-	-	-
1965 ...	160.6014	131.6284	27.8730	-	1.1000	-	-	-
1966 ...	175.5990	146.7910	27.6080	-	1.2000	-	-	-
1967 ...	196.1247	166.3587	28.6660	-	1.1000	-	-	-
1968 ...	214.9613	185.2063	28.7550	-	1.0000	-	-	-
1969 ...	221.9387	192.5367	28.4020	-	1.0000	-	-	-
1970 ...	225.2299	197.2279	26.9020	-	1.1000	-	-	-
1971 ...	241.0916	212.8486	27.3430	-	0.9000	-	-	-
1972 ...	245.1282	218.3842	25.8440	-	0.9000	-	-	-
1973 ...	250.5421	223.7861	25.7560	-	1.0000	-	-	-
1974 ...	237.2659	212.2739	23.9920	-	1.0000	-	-	-
1975 ...	238.3572	213.4572	24.0000	-	0.9000	-	-	-
1976 ...	240.5195	215.5195	24.0000	-	1.0000	-	-	-
1977 ...	254.5484	229.5889	24.0000	0.0595	0.9000	-	-	-
1978 ...	259.1148	233.5357	24.4000	0.2791	0.9000	-	-	-
1979 ...	278.4501	253.0344	24.0000	0.5157	0.9000	-	-	-
1980 ...	273.8809	248.0109	24.2000	0.7700	0.9000	-	-	-
1981 ...	273.3226	245.5086	24.0900	1.1185	0.7356	1.8700	-	-
1982 ...	272.1129	244.3151	23.9200	1.3567	1.0939	1.2700	-	0.1572
1983 ...	279.0303	250.6283	24.8500	1.5269	0.8865	0.9500	-	0.1886
1984 ...	276.3700	248.4026	24.3650	1.7683	0.7796	0.8470	-	0.2075
1985 ...	266.2178	238.6470	23.1430	2.1327	0.9808	0.9560	0.1697	0.1886
1986 ...	271.0562	242.5857	23.9670	2.1644	1.0562	0.4970	0.6036	0.1823
1987 ...	282.7168	256.4061	22.1840	2.1914	0.9670	-	0.8236	0.1446
1988 ...	312.7693	285.4040	23.5990	2.1931	0.9887	-	0.4211	0.1639

Source: Hawaii State Department of Business, Economic Development & Tourism, Energy Division, records.

Table 481.-- ELECTRICITY GENERATION BY SOURCE: 1981 TO 1988

[Millions of kWh generated]

Year	Total	Petroleum	Biomass	Hydro-electric	Geo-thermal	Wind	Coal
1981	7,615	6,913	628	74	-	-	-
1982	7,467	6,729	612	110	16	-	-
1983	7,689	6,914	667	89	19	-	-
1984	7,841	7,073	669	78	21	-	-
1985	7,821	7,001	670	98	19	17	16
1986	8,251	7,412	646	100	18	58	17
1987	8,368	7,577	605	93	14	79	-
1988	8,952	8,115	681	98	16	42	-

Source: Hawaii State Department of Commerce and Consumer Affairs, records; Hawaii State Department of Business and Economic Development, records; Hawaiian Sugar Planters' Association, records.

Table 482.-- ELECTRICITY PRODUCTION, BY SOURCE, BY ISLANDS: 1988

[Million kWh]

Island	Total	Petrol-eum	Biomass	Hydro-electric	Wind	Geothermal
State total ...	8,952	8,115	681	98	42	16
Hawaii	701	417	230	16	21	16
Maui	906	702	178	26	(Z)	-
Lanai	5	5	-	-	-	-
Molokai	30	29	1	-	-	-
Oahu	6,860	6,728	111	-	21	-
Kauai	450	234	161	55	(Z)	-

Z Less than 500,000 kWh.

Source: Hawaii State Department of Business and Economic Development, Energy Division, records; Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 483.-- EXPENDITURES FOR FUELS AND ELECTRICITY, BY SOURCE: 1970 TO 1988

[Millions of dollars]

Year	Total energy expend.	Fuel expenditures			Less: electric utility fuel expend.	Plus: electric purch. by end-user
		Total	Electric utility	Other		
1970	282.7	215.9	17.3	198.6	17.3	84.1
1971	320.8	246.8	24.8	222	24.8	98.8
1972	332.4	250.4	27.3	223.1	27.3	109.3
1973	391.1	300.9	36.3	264.6	36.3	126.5
1974	534.5	433.2	49.8	383.4	49.8	151.1
1975	669.9	546.1	91.9	454.2	91.9	215.7
1976	735.6	600	100.4	499.6	100.4	236
1977	844.5	696.5	123.5	573	123.5	271.5
1978	932.2	767.8	149.3	618.5	149.3	313.7
1979	1,261.3	1,083.7	177	906.7	177	354.6
1980	1,721.3	1,529.8	267.8	1,262	267.8	459.3
1981	2,195.2	1,947.7	451.5	1,496.2	451.5	699
1982	2,153.8	1,869.6	439.4	1,430.2	439.4	723.6
1983	2,019.9	1,730.1	369.3	1,360.8	369.3	659.1
1984	2,048.4	1,724.8	379.3	1,345.5	379.3	702.9
1985	1,921.6	1,586.6	337.6	1,249.0	337.6	672.6
1986	1,564.0	1,147.3	224.6	922.7	224.6	641.3
1987	1,575.1	1,176.2	203.7	972.5	203.7	602.6
1988 1/ .	1,664.1	1,314.6	238.0	1,076.6	238.0	587.5

1/ Provisional.

Source: Hawaii State Department of Business and Economic Development, Division of Energy, records.

Table 484.-- EXPENDITURES FOR FUELS AND ELECTRICITY, BY SECTORS: 1970 TO 1988

[Millions of dollars]

Year	Total fuel	Residential		Commercial and industrial		Trans-port: fuel	Electric utilities: fuel
		Fuel	Elect.	Fuel	Elect.		
1970	215.9	5.5	34.1	18.9	50.0	174.2	17.3
1971	246.8	8.7	38.8	17.9	60.0	195.4	24.8
1972	250.4	6.1	42.6	20.5	66.7	196.5	27.3
1973	300.9	10.5	48.7	24.4	77.8	229.7	36.3
1974	443.2	10.4	57.1	44.7	94.0	328.3	49.8
1975	546.1	7.4	76.9	45.8	138.8	401.0	91.9
1976	600.0	12.7	84.0	45.9	152.0	441.0	100.4
1977	696.5	13.9	92.9	55.0	178.6	504.1	123.5
1978	767.8	13.3	105.8	52.6	207.9	552.6	149.3
1979	1,083.7	26.2	118.9	102.4	235.7	778.1	177.0
1980	1,529.8	19.5	146.4	135.4	312.9	1,107.1	267.8
1981	1,947.7	20.6	214.6	232.4	484.4	1,243.2	451.5
1982	1,869.6	26.2	222.4	283.6	501.2	1,120.4	439.4
1983	1,730.1	22.9	205.9	288.1	453.2	1,049.8	369.3
1984	1,724.8	20.6	217.4	192.1	485.5	1,132.8	379.3
1985	1,586.6	20.6	213.5	100.8	459.1	1,127.6	337.6
1986	1,147.3	13.8	195.8	65.8	445.6	843.1	224.6
1987	1,176.2	(NA)	(NA)	(NA)	(NA)	(NA)	203.7
1988	1,314.6	(NA)	(NA)	(NA)	(NA)	(NA)	238.0

NA Not available.

Source: Hawaii State Department of Business, Economic Development and Tourism, Division of Energy, unpublished estimates.

Table 485.-- ELECTRIC UTILITIES: 1979 TO 1989

Year	Customers, Dec. 31			Installed capacity, Dec. 31 (kW)	Power sold (1,000 kWh)		
	Total	Residential	Other		Total	Residential	Other
1979 ..	293,061	252,898	40,163	1,502,840	6,197,426	1,851,457	4,345,969
1980 ..	301,544	260,358	41,186	1,514,180	6,345,531	1,852,984	4,492,547
1981 ..	305,927	265,042	40,885	1,652,380	6,424,016	1,855,837	4,568,179
1982 ..	313,009	270,712	42,297	1,644,980	6,332,707	1,801,297	4,531,410
1983 ..	319,449	276,194	43,255	1,578,780	6,425,578	1,814,336	4,611,242
1984 ..	324,384	280,518	43,866	1,578,780	6,606,255	1,837,954	4,768,301
1985 ..	330,407	285,117	45,290	1,567,230	6,635,158	1,879,027	4,756,131
1986 ..	337,563	291,222	46,341	1,553,580	7,025,739	1,959,447	5,066,292
1987 ..	347,085	299,758	47,327	1,535,700	7,297,905	2,069,859	5,228,046
1988 ..	354,887	306,375	48,512	1,570,410	7,719,029	2,148,275	5,570,754
1989 ..	362,290	312,347	49,943	1,517,500	7,970,360	2,239,356	5,731,004

Year	Average annual use (kWh) 1/		Average rate (dollars per kWh)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
1979 ..	7,321	108,208	.06420	.05424	354,595	118,862	235,733
1980 ..	7,117	109,079	.07901	.06964	459,251	146,397	312,854
1981 ..	7,002	111,732	.11563	.10605	699,031	214,584	484,447
1982 ..	6,654	107,133	.12348	.11061	723,622	222,423	501,199
1983 ..	6,569	106,606	.11348	.09828	659,089	205,889	453,200
1984 ..	6,552	108,702	.11831	.10181	702,899	217,447	485,452
1985 ..	6,590	105,015	.11361	.09653	672,600	213,478	459,122
1986 ..	6,728	109,326	.09294	.07505	562,345	182,110	380,234
1987 ..	6,905	110,466	.09431	.07792	602,553	195,198	407,355
1988 ..	7,011	114,832	.08829	.07141	587,528	189,689	397,839
1989 ..	7,169	114,751	.09257	.07634	644,789	207,296	437,493

1/ Based on number of customers at end of year.
Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 486.-- ELECTRIC UTILITIES, BY ISLANDS: 1989

County or island	Customers, Dec. 31			Installed capacity, Dec. 31 (kW)	Power sold (1,000 kWh)		
	Total	Resi-dential	Other		Total	Resi-dential	Other
State total	362,290	312,347	49,943	1,517,500	7,970,360	2,239,356	5,731,004
Oahu	247,120	216,063	31,057	1,189,000	6,254,220	1,620,439	4,633,781
Hawaii	48,321	40,012	8,309	128,000	663,512	259,304	404,208
Kauai	22,442	18,779	3,663	59,800	321,259	110,036	211,223
Maui County	44,407	37,493	6,914	140,700	731,369	249,576	481,793
Lanai	1,043	907	136	4,700	12,028	4,095	7,933
Maui	40,712	34,418	6,294	131,000	692,351	233,952	458,400
Molokai	2,652	2,168	484	5,000	26,990	11,530	15,460

County or island	Average annual use (kWh) 1/		Average rate (dollars per kWh)		Revenues ($1,000)		
	Resi-dential	Other	Resi-dential	Other	Total	Resi-dential	Other
State total	7,169	114,751	0.09257	0.07580	641,712	207,296	434,416
Oahu	7,500	149,202	0.08308	0.06785	449,046	134,628	314,418
Hawaii	6,481	48,647	0.11847	0.10764	74,229	30,720	43,509
Kauai	5,860	57,664	0.12661	0.12489	40,312	13,932	26,380
Maui County	6,657	69,684	0.11225	0.10401	78,126	28,016	50,110
Lanai	4,515	58,333	0.15345	0.13840	1,726	628	1,098
Maui	6,797	72,831	0.10735	0.10020	71,046	25,114	45,932
Molokai	5,318	31,942	0.19716	0.19923	5,353	2,273	3,080

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 487.-- GAS UTILITIES: 1979 TO 1989

[Excludes bottled gas]

Year	Customers, Dec. 31			Gas sold (1,000 therms)		
	Total	Residential	Other	Total	Residential	Other
1979 ...	33,309	29,014	4,295	35,264	7,326	27,937
1980 ...	33,019	28,825	4,194	34,705	7,030	27,675
1981 ...	32,421	28,343	4,078	32,396	6,422	25,975
1982 ...	32,905	28,979	3,926	32,224	6,329	25,895
1983 ...	32,880	28,933	3,947	31,307	6,338	24,970
1984 ...	32,643	28,859	3,784	30,928	5,853	25,075
1985 ...	32,988	29,253	3,735	31,203	5,911	25,292
1986 ...	33,369	29,678	3,691	31,122	5,762	25,360
1987 ...	33,895	30,198	3,697	32,408	5,880	26,528
1988 ...	34,103	30,450	3,653	32,733	5,780	26,952
1989 ...	34,304	30,661	3,643	33,865	5,896	27,969

Year	Average annual use (therms) 1/		Average rate (dollars per therm)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
1979 ...	253	6,505	1.09260	.89221	32,931	8,006	24,925
1980 ...	244	6,599	1.46583	1.25951	45,162	10,305	34,857
1981 ...	227	6,369	1.72585	1.50091	50,069	11,083	38,986
1982 ...	218	6,596	1.73311	1.43891	48,229	10,969	37,260
1983 ...	219	6,326	1.79719	1.44022	47,352	11,390	35,962
1984 ...	203	6,627	1.78958	1.37488	44,949	10,474	34,475
1985 ...	202	6,772	1.76934	1.33821	44,305	10,459	33,846
1986 ...	194	6,871	1.57151	1.12027	37,465	9,055	28,410
1987 ...	195	7,176	1.57204	1.10494	38,556	9,244	29,312
1988 ...	189	7,378	1.54961	1.07840	38,023	8,957	29,066
1989 ...	192	7,677	1.54200	1.06487	38,876	9,092	29,783

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 488.-- GAS UTILITIES, BY ISLANDS: 1989

[Excludes bottled gas]

Island	Customers, Dec. 31			Gas sold (therms)		
	Total	Residential	Other	Total	Residential	Other
State total	34,304	30,661	3,643	33,865,453	5,896,392	27,969,061
Oahu	31,812	28,539	3,273	30,776,030	5,446,060	25,329,970
Hawaii	1,847	1,539	308	2,230,590	331,219	1,899,371
Kauai	276	276	-	58,052	58,052	-
Maui	369	307	62	800,781	61,061	739,720
Molokai	-	-	-	-	-	-
Lanai	-	-	-	-	-	-

Island	Average annual use (therms) 1/		Average rate (dollars per therm)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
State total	192	7,677	1.54200	1.06487	38,876	9,092	29,783
Oahu	191	7,739	1.56489	1.07875	35,847	8,522	27,325
Hawaii	215	6,167	1.26204	0.94644	2,216	418	1,798
Kauai	210	-	1.30614	-	76	76	-
Maui	199	11,931	1.24338	0.89365	737	76	661
Molokai	-	-	-	-	-	-	-
Lanai	-	-	-	-	-	-	-

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 489.-- SERVICE PROVIDED BY HAWAIIAN ELECTRIC CO., INC., ON OAHU: 1984 TO 1989

Year	Number of customers, Dec. 31		Net input 1/ (1,000 kWh)	Power sold (1,000 kWh)	Average annual residential use 2/ (kWh)	Average residential rate (dollars per kWh)	Generating capability (kW) Dec. 31
	Total	Residential only					
1984 ..	228,606	199,722	5,633,940	5,330,931	6,960	0.11032	1,283,000
1985 ..	231,912	202,222	5,637,678	5,336,262	6,997	0.10417	1,283,000
1986 ..	235,742	205,636	5,933,569	5,625,398	7,113	0.08328	1,277,000
1987 ..	241,426	211,277	6,135,382	5,804,298	7,322	0.08591	1,277,000
1988 ..	244,965	214,429	6,439,768	6,095,707	7,386	0.07973	1,258,000
1989 ..	247,120	216,063	6,617,943	6,254,220	7,534	0.08308	1,271,000

1/ Net generation plus purchased power.
2/ Based on average number of customers during the year.
Source: Hawaiian Electric Co., Inc., records.

Table 490.-- GAS UTILITY SERVICE BY GASCO, INC., FOR OAHU: 1984 TO 1989

Calendar year	Customers, Dec. 31		Gas sold 1/ (1,000 therms)		Average annual residential usage 1/ (therms)
	Total	Residential	Total	Residential	
1984 ...	30,041	26,636	28,190	5,389	202
1985 ...	30,442	27,085	28,255	5,436	201
1986 ...	30,831	27,516	28,137	5,318	193
1987 ...	31,398	28,069	29,345	5,435	194
1988 ...	31,613	28,331	29,689	5,342	189
1989 ...	31,812	28,539	30,776	5,446	191

1/ Includes liquefied petroleum gas.
Source: Gasco, Inc., records.

Table 491.-- LIQUID FUEL TAX BASE: 1979 TO 1989

[In thousands of gallons]

Year reported 1/	All types		Gasoline	Diesel oil	
	Total	Excluding aviation		Non-hwy.	Hwy. use
1979	960,837	454,012	324,337	108,460	16,596
1980	939,766	437,222	312,896	101,719	17,765
1981	918,437	428,886	305,886	101,212	15,771
1982	893,288	418,811	308,600	88,312	17,303
1983	919,865	418,217	310,085	86,790	16,440
1984	925,871	440,061	322,410	95,956	17,892
1985	970,555	432,500	327,021	83,147	17,636
1986	1,059,180	456,013	336,559	95,022	19,354
1987	1,206,716	512,974	348,474	137,806	21,207
1988	1,216,828	515,273	357,986	131,292	21,057
1989	1,268,597	535,714	369,172	136,465	23,729

Year reported 1/	Liquefied petroleum gas		Aviation fuel	Small boats	
	Off-hwy.	Hwy. use		Gasoline	Diesel oil
1979	2,213	1,140	506,825	410	856
1980	2,448	1,140	502,544	338	917
1981	2,378	1,136	489,551	424	2,079
1982	2,628	960	474,477	207	802
1983	3,013	1,052	501,648	213	624
1984	2,600	873	485,810	114	215
1985	2,804	1,028	538,055	187	676
1986	2,969	1,031	603,167	163	916
1987	3,135	1,142	693,742	123	1,089
1988	3,012	1,071	701,555	63	792
1989	4,301	968	732,883	57	1,022

1/ Liquid fuel sold in a given month is usually reported the following month. Annual totals accordingly refer to fuel sold during a 12-month period ended November 30.

Source: Hawaii State Department of Taxation, "Liquid Fuel Tax Base, Collections and Distribution" (annual report).

Table 492.-- LIQUID FUEL TAX BASE, BY COUNTIES: 1989

[In thousands of gallons]

Type of fuel	State total	City and Co. of Honolulu	County of Maui	County of Hawaii	County of Kauai
Total	1,268,597	1,057,543	85,295	78,502	47,258
Gasoline	369,172	250,447	43,369	53,194	22,161
Diesel oil, non-hwy. ...	136,465	66,433	31,910	13,994	24,128
Diesel oil, hwy. use ...	23,729	16,486	2,316	4,311	615
Liq. pet. gas, off hwy.	4,301	3,029	534	569	170
Liq. pet. gas, hwy. use	968	792	82	57	37
Small boats, gasoline ..	57	56	-	1	-
Small boats, diesel oil	1,022	119	-	903	-
Aviation fuel	732,883	720,180	7,083	5,473	147

Source: Hawaii State Department of Taxation, "Liquid Fuel Tax Base, Collections and Distribution, Calendar Year Ending December 31, 1989" (annual release).

Table 493.-- IMPORTS AND EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS: 1988

[1,000 barrels]

Product	Imports			Exports		
	Total	Domestic	Foreign	Total	Domestic	Foreign
Crude oil	41,218	20,755	20,463	-	-	
Refined products	6,651	3,353	3,298	6,829	3,331	3,498
Motor gasoline	193	193	-	187	187	-
Distillates	217	217	-	1,658	1,067	591
Jet fuel 1/	2,677	1,119	1,559	2,160	104	2,056
Residual fuel oil ..	3,563	1,824	1,739	2,524	1,673	851
Other	-	-	-	300	300	-

1/ Excludes imports of 3,686,500 barrels of unknown origin.

Source: Hawaii State Department of Business and Economic Development, Energy Division, records.

Table 494.-- GASOLINE SERVICE STATIONS (SIC 554) WITH PAYROLL, BY COUNTIES: 1982 AND 1987

Year	State total	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County		
					Lanai	Maui	Molokai
1982 1/ ...	366	251	60	22	-	31	2
1987	355	241	52	26	1	34	1

1/ Unrevised data. The revised Statewide total, not available for counties, was 389.

Source: U.S. Bureau of the Census, Census of Retail Trade, Hawaii for 1982 (RC82-A-12, table 8) and 1987 (RC87-A-12, table 5).

Table 495.-- GASOLINE AVERAGE PRICES PER GALLON, FOR OAHU: ANNUAL AVERAGES, 1984 TO 1989

[In dollars. Average prices include all applicable federal, state, and county taxes. For earlier years, 1903-1983, see Data Book 1984, tables 497 and 498]

Period	All types 1/	Leaded regular	Unleaded regular	Unleaded premium
1984	1.450	1.367	1.443	(NA)
1985	1.392	1.274	1.396	(NA)
1986	1.206	1.077	1.221	1.346
1987	1.233	1.099	1.254	1.372
1988	1.293	1.204	1.273	1.413
1989	2/ 1.365	(NA)	1.404	1.460

NA Not available.

1/ Includes types not shown separately.

2/ The U.S. city average for 1989 was $1.060.

Source: Based on data in the U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly). The 1984-1986 Honolulu prices and 1989 U.S. average are actual values; the 1987, 1988 and 1989 Honolulu prices are estimates based on actual prices for the last half of 1986 and CPI(U) changes for gasoline for subsequent years.

Table 496.-- GASOLINE AVERAGE PRICES PER GALLON, REGULAR AND PREMIUM, BY TYPE OF SERVICE, FOR THE UNITED STATES AND HAWAII: APRIL 1990

[Dollars]

Area	Weighted average 1/	Self-service		Full-service	
		Regular	Premium	Regular	Premium
United States	1.12	1.03	1.20	1.28	1.42
Hawaii	1.44	1.25	1.46	1.71	1.84
Percent of U.S.	128.6	121.4	121.7	133.6	129.6

1/ Hawaii ranked first among the 50 States and D.C. Alaska was second, at $1.27; D.C. third, at $1.23; and Connecticut fourth, at $1.21.

Source: Survey by American Automobile Association cited in James Sylvester, "Hawaii's gas prices still lead the nation," Honolulu Star-Bulletin, April 11, 1990, pp. C-1, C-4.

Table 497.-- BOILERS AND PRESSURE VESSELS: 1988 AND 1989

Date	Total	Power boilers	Heating boilers	Pressure vessels
1988: Dec. 31 ...	8,508	567	2,458	5,422
1989: Dec. 31 ...	8,519	574	2,441	5,504

Source: Hawaii State Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Boiler and Elevator Inspection Bureau, records.

Table 498.-- ENERGY GENERATED, PURCHASED, SOLD, AND USED BY SUGAR PLANTATIONS, BY ISLANDS: 1988

Subject	State total	Hawaii	Kauai	Maui	Oahu
Electricity (millions of kilowatt-hours)					
Generated 1/	901	265	231	254	150
Purchased	17.61	1.58	3.66	5.09	7.29
Sold	455.45	184.41	119.81	97.56	53.67
Used 2/	456.89	82.28	114.98	155.62	104.02
Gross heat values of boiler fuels (biilions of Btu's)					
All fuels	27,646	8,861	6,322	7,925	4,538
Bagasse	22,241	6,882	5,876	6,325	3,159
Fuel oil	4,887	1,973	427	1,523	964
Other fuels	467	7	19	26	415

1/ Includes electricity generated by steam and by hydroelectric or diesel engine generators.

2/ Includes transmission losses and electricity used to operate power plant auxiliaries.

Source: Hawaiian Sugar Planters' Association, Energy Inventory of Hawaiian Sugar Plantations - 1988 (Energy Report 27, December 28, 1989), pp. 6-9.

Table 499.-- PERCENT OF HOUSING UNITS WITH SOLAR OR HEAT PUMP WATER HEATING SYSTEMS: 1977 TO 1987

System	1977	1979	1981	1983	1985	1986	1987
Solar	0.3	2.9	5.9	7.9	10.6	10.6	10.5
Heat pump	(NA)	(NA)	0.6	1.6	1.6	1.6	1.6

NA Not available.

Source: Calculated from cumulative totals (as of Dec. 31) in table 500 and DBED estimates of total housing stock on following April 1 in table 619.

Table 500.-- STATE TAX CREDITS FOR RESIDENTIAL SOLAR AND HEAT PUMP WATER HEATING SYSTEMS: 1975 TO 1987

[The State allows individual income tax credits for solar energy devices installed after 1974 and heat pump systems installed after 1980. Data exclude commercial, military, and government systems, those installed previously, and those for which no State tax credit was made. Devices in condominiums may be claimed on a pro-rata basis for each housing unit. Federal solar tax credit was discontinued in 1986]

Year installed	Number of claims		Cumulative number of claims		Average solar device cost (dollars)	Total tax credit allowed ($1,000)	
	Solar devices	Heat pumps	Solar devices	Heat pumps		Solar devices	Heat pumps
1975-77	1,101	...	1,101	...	2,135	230	...
1978	4,061	...	5,162	...	2,907	1,120	...
1979	4,375	...	9,537	...	3,031	1,250	...
1980	4,704	...	14,241	...	3,346	1,493	...
1981	6,445	2,013	20,686	2,013	3,500	2,107	164
1982	4,407	3,122	25,093	5,135	3,695	1,512	154
1983	3,148	665	28,241	5,800	3,601	1,076	40
1984	4,464	257	32,705	6,057	3,519	1,482	13
1985	6,740	12	39,445	6,069	3,897	2,616	1
1986	592	22	40,037	6,091	2,230	198	4
1987	354	137	40,391	6,228	3,213	149	14

Source: Hawaii State Department of Taxation, Tax Credits Claimed by Hawaii Residents for 1977-1987.

Table 501.-- RESEARCH AND DEVELOPMENT CHARACTERISTICS AND RANK: 1985-1987

Characteristic	Value	Rank 1/
PERSONNEL CHARACTERISTICS		
Scientists, 1986	9,400	43
Engineers, 1986	9,300	37
Doctoral scientists, 1987	2,262	37
Doctoral engineers, 1987	209	43
New S&E doctorates awarded, 1987	102	38
S&E postdoctorates, 1987, in doctorate-granting institutions	43	41
S&E graduate students, 1987, in doctorate-granting institutions	1,964	38
FUNDING CHARACTERISTICS 2/		
Federal expenditures, 1987	$4,759	39
Federal R&D obligations, 1987	$64	41
Industrial R&D performance, 1985	$0-$14	40-51
Academic R&D performance at doctorate-granting institutions, 1987	$57	38
Total R&D performance, 1985	$76-$90	43-51

1/ Among 50 states and D.C.

2/ Dollar amounts in millions.

Source: National Science Foundation, Geographic Patterns: R&D in the United States, NSF 89-317 (1989), p. 49.

Table 502.-- FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT IN HAWAII BY AGENCY AND PERFORMER: FISCAL YEAR 1987

Agency and performer	Amount ($1,000)	Rank
Total	64,372	41
Funding agency:		
Department of Agriculture	9,898	32
Department of Commerce	2,715	14
Department of Defense	14,045	38
Department of Energy	5,336	33
Department of Health & Human Services	9,534	43
Department of the Interior	6,906	16
Department of Transportation	142	43
Environmental Protection Agency	25	50
National Aeronautics & Space Administration	5,388	31
National Science Foundation	10,383	29
Performer:		
Federal intramural	23,218	36
Industrial firms	4,660	44
Universities and colleges	31,188	38
Other nonprofit	4,711	31
State and local government	595	38

Source: National Science Foundation, Geographic Patterns: R&D in the United States, NSF 89-317 (1989), p. 49.

Table 503.-- FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT AND R&D PLANT IN HAWAII: 1983 TO 1988

[Millions of dollars. For fiscal years ended September 30]

Type of obligation	1983	1984	1985	1986	1987	1988
Obligations for R&D	71.4	52.9	58.2	54.7	63.9	82.2
Obligations for R&D plant	1.6	0.6	0.9	0.6	0.6	6.9

Source: National Science Foundation, Federal Funds for Research and Development: Fiscal Years 1988, 1989, and 1990, Volume XXXVIII, NSF 90-306 (1990), pp. 100-101.

Table 504.-- R & D EXPENDITURES BY STATE GOVERNMENT: 1987 AND 1988

[$1,000. Fiscal years ended June 30]

State agency	All sources		State sources		Other sources	
	1987	1988	1987	1988	1987	1988
All State govt. ...	116,270	129,424	42,131	44,388	74,139	85,036
University of Hawaii ...	62,231	70,023	23,214	25,284	39,017	44,739
Research Corp. of UH ...	42,000	49,000	8,000	10,000	34,000	39,000
Other State govt.	12,039	10,401	10,917	9,104	1,122	1,297

Source: Hawaii State Department of Business and Economic Development, unpublished survey.

Table 505.-- RESEARCH AND NON-RESEARCH EXTRAMURAL FUNDING, FOR THE UNIVERSITY OF HAWAII: 1985-86 TO 1989-90

[Research and non-research awards received through the Office of Research Administration, University of Hawaii]

Fiscal year	Total		Research		Non-research	
	Awards	Amount (dollars)	Awards	Amount (dollars)	Awards	Amount (dollars)
1985-86 ...	643	53,976,468	354	35,750,696	289	18,225,772
1986-87 ...	643	52,360,382	378	35,787,240	265	16,573,142
1987-88 ...	678	61,476,926	417	39,410,637	261	22,066,289
1988-89 ...	777	71,898,382	466	46,990,238	311	24,908,144
1989-90 ...	851	83,689,450	488	49,362,792	363	34,326,658

Source: Office of Research Administration, University of Hawaii, 1989-1990 Extramural Awards (1990), p. i.

Table 506.-- RESEARCH AND DEVELOPMENT EXPENDITURES AT DOCTORATE-GRANTING INSTITUTIONS: 1984 TO 1988

[Thousands of dollars. For fiscal years ended September 30]

Type of expenditure	1984	1985	1986	1987	1988
Total R&D expenditures	51,051	54,025	57,383	57,345	64,278
Federally financed	32,701	34,886	35,322	34,472	38,560

Source: National Science Foundation, Academic Science/Engineering: R & D Funds, Fiscal Year 1988, NSF 89-326 (1990), tables B-22 and B-23.

Table 507.-- TELESCOPES AT THE SUMMITS OF MAUNA KEA AND HALEAKALA: 1988

Location and telescope (diameter in meters)	Year completed	Capital costs (millions of 1986 dollars)	Operating costs, 1988 (million dollars)	Local staff (persons)
Mauna Kea:				
UH 0.61-m.	1969	0.3	0.1	13
UH 0.61-m.	1969	0.3		
UH 2.24-m.	1970	8.0	1.2	
Canada-France-Hawaii (CFHT) ..	1979	45.0	3.5	43
NASA IRTF 3.0-m.	1979	15.0	1.8	10
UK (UKIRT) 3.8-m.	1979	15.0	1.5	29
James Clerk Maxwell (JCMT) ...	1986	20.0	1.0	20
Caltech Submillimeter (CSO) 10.4-m.	1986	10.0	1.5	11
W.M. Keck Observatory Optical/IR 10.0-m. 1/	1991	85.0	2.3	35
Haleakala (on UH land):				
Mees Solar Observatory	1956	0.5	0.3	6
Lunar Ranging Facility	1976/84	3.25	0.7	9
Gamma Ray Facility	1985	2.0	0.2	1

1/ Under construction. Figures are projected.

Source: University of Hawaii at Manoa, Institute for Astronomy, data provided July 18, 1988.

Table 508.-- PATENTS ISSUED TO HAWAII RESIDENTS: 1982 TO 1989

[Fiscal years ended September 30. Data include design, plant, and reissue patents]

Fiscal year	Patents	Fiscal year	Patents
1982	31	1986	37
1983	30	1987	52
1984	43	1988	62
1985	33	1989	74

Source: U.S. Department of Commerce, Patent and Trademark Office, Commissioner of Patents and Trademarks Annual Report, Fiscal Year '89, p. 59, and earlier editions.

Table 509.-- COMPUTER USE BY OAHU RESIDENTS EMPLOYED OUTSIDE THEIR HOMES: 1988 AND 1989

[Percent. As of March]

Subject	1988	1989
Use of personal computer at place of work	100	100
Always	22	27
Frequently	14	13
Occasionally	15	16
Never	50	44
Facsimile machine (FAX) at place of work	100	100
Yes	41	52
No	46	44
Don't know	13	5
Own a personal computer for use at home	100	100
Yes	25	33
No	75	67

Source: Omnitrak/Hawaii Inc. Polls (400 telephone interviews each) reported in Honolulu Star-Bulletin, May 23, 1989 (p. C-1), May 30, 1989 (p. D-1), and June 6, 1989 (p. D-1).

TRANSPORTATION

This section presents statistics relating to public roads, motor vehicles, bicycles, traffic accidents, local public transit, civil aviation, harbors, and water traffic. Other information bearing on transportation appears in Sections 7, 12, 14, and 24.

Motor vehicle registration in Hawaii increased from 611,000 in 1979 to 855,000 in 1989. Vehicle miles rose during the same period from 4.8 billion to 7.7 billion. Hawaii residents purchased 71,000 new passenger cars and 15,000 trucks in 1989. By the end of that year, 657,000 licensed drivers had access to 4,087 miles of streets and highways throughout the State. Bus passengers carried by the Honolulu Mass Transit Lines increased from 69 million in 1979 to 75 million in 1989. Registered bicycles numbered 93,000 in 1989.

Almost all scheduled interisland travel is by air. In 1989, airlines and air taxis reported 9.6 million interisland passengers, some 27 percent more than in 1979, and carried 73,000 tons of cargo. The State has seven commercial airports, 15 general aviation, military or semi-private airports, 15 civilian heliports, 3,600 active pilots, and about 600 active civil aircraft in general aviation.

Rapid growth is similarly evident in transpacific air travel. In 1989, 7,023,000 overseas passengers arrived by air, a 10-year growth of 65 percent. Overseas air cargo received that year exceeded 150,000 tons.

Undocumented State-registered vessels as of December 31, 1989 numbered 13,500, compared with 8,000 in 1970. Median length was 17.4 feet, and four-fifths were stored on land. There were 1,700 documented vessels in the State in 1990, triple the 1970 total. Overseas vessels brought 10,000 passengers into the State in 1990. Receipts of cargo in 1988 included 11.0 million tons in overseas cargo and 5.3 million tons in interisland cargo.

The chief source for transportation statistics is the Hawaii State Department of Transportation and its Highways, Harbors and Airports Divisions. Other sources include the U.S. Coast Guard, Federal Aviation Administration, Federal Highway Administration, Army Corps of Engineers, Honolulu Department of Transportation Services and Department of Data Systems, county finance departments, Hawaii Automobile Dealers' Association, and individual transportation companies. Data for the entire period of record through 1976 appear in Historical Statistics of Hawaii, Section 17. Similar statistics for other areas are reported in Statistical Abstract of the United States: 1990, Sections 21 and 22.

Table 510.-- HIGHWAY DISTANCES: 1990

Route	Statute miles
HAWAII	
Hilo-Lyman Field	2.0
Hilo-Kalapana	26.1
Hilo-Mauna Kea summit	39.3
Hilo-Mauna Loa summit	52.4
Hilo-Volcano House	30.7
Hilo-Kailua, via Naalehu	125.2
Hilo-Kailua, via Saddle Rd.	84.3
Hilo-Kailua, via Hamakua	91.2
Hilo-Waimea, via Saddle Rd.	57.9
Hilo-Waimea, via Hamakua	55.3
Hilo-Upolu Pt., via Hamakua	83.7
Hilo-Kawaihae, via Hamakua	69.5
Waimea-Hawi	21.4
Waimea-Kawaihae	11.5
Kawaihae-Hawi	18.0
Kawaihae-Kailua	48.4
Kailua-Keahole Airport	6.8
Kailua-Keauhou	6.9
MAUI	
Wailuku-Kahului	2.3
Wailuku-Kahului Airport	4.2
Wailuku-Hana, via Keanae	53.7
Wailuku-Hana, via Kaupo	59.8
Wailuku-Haleakala summit	38.2
Wailuku-Makena	17.6
Wailuku-Lahaina, via Kahakuloa	38.0
Wailuku-Lahaina, via Olowalu	20.9
Kahului-Kihei	7.9
Lahaina-Wailea	32.4
Lahaina-Napili	8.9
Lahaina-Kaanapali	3.7
LANAI	
Lanai City-Lanai Airport	2.7
Lanai City-Hulopoe	8.0
MOLOKAI	
Kaunakakai-Sheraton Hotel	19.5
Kaunakakai-Maunaloa	16.5
Kaunakakai-Airport	7.0
Kaunakakai-Halawa	27.6
Airport-Sheraton Hotel	11.5
OAHU 1/	
Honolulu-Ala Moana Center	1.6
Honolulu-UH, via King Street	3.2
Honolulu-Waikiki	3.2
Honolulu-Waimanalo, via Koko Head	21.8
Honolulu-Waimanalo, via Nuuanu	13.3
Honolulu-Kailua, via Nuuanu	11.6
Honolulu-Kaneohe, via Kalihi	10.8
Honolulu-Kahuku, via Kahaluu	36.2
Honolulu-Kahuku, via Wahiawa	46.2
Honolulu-Kaena Pt., via Wahiawa	42.4
Honolulu-Kaena Pt., via Waianae	44.3
Honolulu-Wahiawa	20.5
Honolulu-Pearl Harbor Shipyard	6.5
Honolulu-Honolulu Airport	4.8
Waikiki-UH, via Kapahulu	3.2
Waikiki-Honolulu Airport	8.0
Waimanalo-Kahuku	33.0
Circle island, via Makapuu	99.1
Circle island, via Nuuanu Pali	81.1
KAUAI	
Lihue-Haena	38.0
Lihue-Wailua	5.9
Lihue-Lihue Airport	2.0
Lihue-Poipu	11.9
Lihue-Mana	32.9
Lihue-Kalalau Lookout	44.6
Poipu-Kalalau Lookout	36.8
Poipu-Princeville	40.7

1/ Honolulu distances measured from King and Bishop Streets; Waikiki, from Kalakāua and Lewers.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 511.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED: 1923 TO 1989

[Excludes private thoroughfares and military roads not regularly open to public use]

Category	1923	1938	1958	1973	1989
Total mileage ...	1,479	2,040	2,967	3,666	4,087
Paved	565	1,367	2,393	3,172	3,869
Unpaved	914	673	575	494	218

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 429; present report, table 512.

Table 512.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED, BY ISLANDS: DECEMBER 31, 1989

[Excludes private thoroughfares and military roads not regularly open to public use]

Island	Total mileage	Paved		Unpaved
		Freeways	Other	
State total	4,087.48	96.55	3,772.58	218.35
Hawaii 1/	1,449.95	7.04	1,363.79	79.72
Maui	589.23	3.21	529.32	56.70
Lanai	45.83	-	31.83	14.00
Molokai	129.22	-	117.22	12.00
Oahu	1,477.89	86.30	1,358.15	33.44
Kauai	395.36	-	372.87	22.49
Niihau	-	-	-	-

1/ Data exclude Chain of Craters Road, closed due to volcanic eruption.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 513.-- HIGHWAY BRIDGES, BY ISLANDS: DECEMBER 31, 1989

Island	Number of bridges 1/	Longest bridge		Highest bridge	
		Location	Length (feet)	Location	Height (feet)
State .	697	Airport Viaduct .	14,890	Nanue	208
Hawaii	129	Hakalau	775	Nanue	208
Maui	93	Kalialinui	324	Uaoa	79
Lanai	-	None	...	None	...
Molokai	19	Manawainui	325	Manawainui	50
Oahu	404	Airport Viaduct .	14,890	Kipapa	156
Kauai	52	Hanamaulu	1,150	Wahiawa, Koloa	90

1/ Limited to bridges under State jurisdiction and 20 feet or longer.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 514.-- HIGHWAY TUNNEL LENGTHS: DECEMBER 31, 1989

Island and name of tunnel	Length (feet)
Oahu:	
Pali No. 1: Inbound (to Honolulu)	1,000
Outbound (from Honolulu)	1,080
Pali No. 2: Inbound	500
Outbound	497
Wilson: Inbound	2,775
Outbound	2,813
Middle Street	393
Structure No. 8, Waiawa Interchange	300
Maui:	
Olowalu	318
Kauai:	
Kipu-Mahaulepu (private road)	2,200

Source: Hawaii State Department of Transportation, Highways Division, records; McBryde Sugar Plantation, records.

Table 515.-- SIGNALIZED INTERSECTIONS AND METERED PARKING SPACES, BY ISLANDS: DECEMBER 31, 1985

Type of facility	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Signalized intersections	580	38	18	-	-	516	8
Metered on-street parking spaces	3,630	816	-	-	-	2,814	-
Metered off-street parking spaces 1/	3,226	277	68	-	18	2,797	66

1/ Limited to spaces under State or county control. Excludes about 900 spaces on Oahu converted to contract operation.

Source: Compiled by Hawaii State Department of Planning and Economic Development from Hawaii State Department of Accounting and General Services, Hawaii State Department of Transportation, City and County of Honolulu Department of Transportation Services, Hawaii County Department of Public Works, Kauai County Department of Public Works, and Maui County Department of Public Works.

Table 516.-- VEHICLE DENSITIES: 1923 TO 1989

Measure	1923	1938	1958	1973	1989
Motor vehicles per --					
1,000 persons 1/	65.6	151.2	330.9	529.0	677.0
Mile of street or highway	13.3	30.4	68.2	130.0	209.2
Persons per 1/ --					
Motor vehicle	15.2	6.6	3.0	1.9	1.5
Mile of street or highway	202.5	201.0	206.2	245.9	309.0

1/ Based on resident population through 1938 and de facto population thereafter.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), tables 1.4 and 17.2; present report, tables 3, 511, and 517.

Table 517.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1979 TO 1989

[Taxable and non-taxable, including military
non-resident exempt vehicles]

Year	All vehicles registered	Motor vehicles			
		All motor vehicles	Passenger vehicles 1/	Ambulances, hearses, patrol wagons	Buses
1979	626,841	610,570	510,353	91	3,267
1980	633,846	617,571	514,669	85	3,366
1981	667,019	649,350	541,932	88	3,577
1982	689,468	671,513	566,060	80	3,863
1983	(NA)	702,854	(NA)	(NA)	(NA)
1984	735,458	717,171	599,845	68	4,034
1985	767,892	749,034	625,823	66	4,189
1986	790,855	771,575	642,636	60	4,158
1987	818,430	798,317	661,674	54	4,198
1988	838,327	817,609	670,877	52	4,215
1989	876,848	855,057	695,397	54	4,203

Year	Motor vehicles -- continued				Trailers and semi-trailers
	Trucks 1/	Truck tractors, tow trucks	Truck crane, misc.	Motorcycles, motor scooters 2/	
1979	84,578	1,784	511	9,986	16,271
1980	87,542	1,725	488	9,696	16,275
1981	90,954	1,641	458	10,700	17,669
1982	88,410	1,395	388	11,317	17,955
1983	(NA)	(NA)	(NA)	(NA)	(NA)
1984	101,233	1,428	364	10,199	18,287
1985	106,673	1,334	342	10,607	18,858
1986	112,053	1,290	323	11,055	19,280
1987	119,338	1,220	318	11,515	20,113
1988	129,452	1,176	293	11,544	20,718
1989	141,845	1,107	292	12,159	21,791

Footnotes and source on next page.

Table 517.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1979 TO 1989 -- Con.

NA Not available.

1/ Beginning in 1979, vans and other trucks under 6,500 lb. in personal use were legally classified as passenger vehicles, but the data shown here have been adjusted to continue inclusion of such vehicles in the totals for trucks.

2/ Excluding mopeds (1.5 HP or less), which are legally classified as bicycles.

Source: City and County of Honolulu, Department of Data Systems, records; present report, table 502.

Table 518.-- MOTOR VEHICLES REGISTERED, BY COUNTIES: 1979 TO 1989

[Taxable and non-taxable, including military non-resident exempt vehicles. Includes passenger cars, buses, trucks, and motorcycles but excludes trailers and semi-trailers]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1979	610,570	452,449	67,718	29,492	60,911
1980	617,571	454,316	70,047	30,604	62,604
1981	649,350	476,995	75,812	32,932	63,611
1982	671,513	495,629	77,024	33,931	64,929
1983	702,854	515,002	80,090	35,365	72,397
1984	717,171	525,599	80,840	35,236	75,496
1985	749,034	544,976	85,806	37,659	80,593
1986	771,575	556,935	89,918	40,585	84,137
1987	798,317	571,738	93,095	43,925	89,559
1988	817,609	579,998	96,360	47,235	94,016
1989	855,057	599,379	103,724	51,455	100,499

Source: City and County of Honolulu, Department of Data Systems, records; present report, table 502.

Table 519.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE, FOR COUNTIES: 1989 AND 1983

[Taxable and non-taxable, including military non-resident exempt vehicles]

Type of vehicle	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1989					
All vehicles	876,848	611,824	108,372	53,677	102,975
Motor vehicles	855,057	599,379	103,724	51,455	100,499
Passenger vehicles 1/	695,397	489,925	83,484	40,985	81,003
Ambulances 2/	54	36	11	1	6
Buses	4,203	3,386	262	103	452
Trucks 1/	141,845	95,867	18,270	9,687	18,021
Truck tractors 3/	1,107	515	259	123	210
Truck cranes 4/	292	103	56	41	92
Motorcycles 5/	12,159	9,547	1,382	515	715
Trailers and semi-trailers ..	21,791	12,445	4,648	2,222	2,476
1983					
Motor vehicles	702,854	515,002	80,090	35,365	72,397
U-drive	30,442	18,580	2,891	1,478	7,493
All others	672,412	496,422	77,199	33,887	64,904

1/ Vans and other trucks under 6,500 lb. in personal use, legally classified as passenger vehicles, are included in the trucks category.

2/ Including hearses and patrol wagons.

3/ Including tow trucks.

4/ Including miscellaneous vehicles.

5/ Including motorscooters but excluding mopeds (1.5 HP or less), legally classified as bicycles.

Source: 1989 from City and County of Honolulu, Department of Data Systems, records; 1983 from Applied Analysis, Inc., Estimating Annual Vehicle-miles Traveled (VMT) in the State of Hawaii (August 1987), and records.

Table 520.-- AUTOMOBILES, TRUCKS, AND VANS AVAILABLE TO OCCUPIED HOUSING UNITS, BY COUNTIES: 1980

Number of vehicles available	The State	Hawaii	Honolulu	Kalawao	Kauai	Maui
Occupied units	294,052	29,237	230,214	71	12,020	22,510
None	30,509	2,463	25,628	8	788	1,622
1	115,357	9,193	95,735	18	3,209	7,202
2	94,699	10,775	71,456	25	4,440	8,003
3 or more	53,487	6,806	37,395	20	3,583	5,683

Source: U.S. Bureau of the Census, 1980 Census of Housing, Detailed Housing Characteristics, Hawaii, HC80-1-B13 (May 1983), tables 61 and 94.

Table 521.-- TAXABLE VEHICLES, BY TYPE AND EMPTY WEIGHT: JANUARY 1990

Empty weight	Passenger vehicles	Buses	Trucks 1/	Truck tractors, tow trucks	Motorcycles	Trailer
All taxable vehicles	637,836	2,733	44,408	655	7,262	13,934
Under 2,000 lb.	38,151	-	21	-	7,259	10,445
2,000 to 2,999 lb.	348,958	32	9,010	8	2	581
3,000 to 3,999 lb.	207,600	61	12,945	12	1	196
4,000 to 4,999 lb.	39,326	709	10,565	15	-	194
5,000 to 5,999 lb.	3,007	846	2,764	10	-	200
6,000 to 9,999 lb.	518	461	4,158	85	-	848
10,000 lb. and over	276	624	4,945	525	1	1,470
Median weight (lb.)	2,805	5,667	4,022	14,558	<2,000	<2,000

1/ Vans and other trucks under 6,500 lb. in personal use are classified as passenger vehicles.

Source: Hawaii State Department of Transportation, Highways Division, Staff Services Office, Budget, Methods and Systems Staff; printouts from Honolulu Department of Data Systems. Medians calculated by Hawaii State Department of Business and Economic Development.

Table 522.-- TRUCK CHARACTERISTICS: 1977, 1982, AND 1987

[Percent]

Vehicular and operational characteristics	1977	1982	1987 1/
Major use: Personal transportation	50.0	54.3	60.5
Body type: Pickup, panel, or mini-van	85.1	89.1	91.2
Vehicle size: Light	89.0	92.9	94.6
Annual miles: Less than 10,000	54.1	59.7	57.0
Year model: Over 4 years old	68.1	75.8	62.1
Vehicle acquisition: Purchased new	54.6	47.3	49.6
Fleet size: 1 truck	64.0	72.3	64.4
Truck type: Single-unit, 2 axles	95.7	96.6	96.4
Range of operation: Local	87.3	78.2	80.2
Fuel type: Diesel and LPG	4.6	3.7	5.4

1/ There were 160,800 trucks in Hawaii in 1987, which traveled 1,550.5 million truck miles, or 9,600 per truck.

Source: U.S. Bureau of the Census, 1987 Census of Transportation, Truck Inventory and Use Survey, Hawaii, TC87-T-12 (March 1990), tables 1 and 2.

Table 523.-- NEW PASSENGER CARS AND MOTOR TRUCKS REGISTERED: 1984 TO 1989

Year	Total	Passenger cars	Motor trucks
1984	63,625	48,791	14,834
1985	67,875	51,330	16,545
1986	68,060	49,680	18,380
1987	73,138	51,446	21,692
1988	78,454	56,278	22,176
1989	84,485	59,893	24,592

Source: R.L. Polk and Co., cited in Motor Vehicle Manufacturers Association of the United States, Inc., MVMA Motor Vehicle Facts and Figures (annual).

Table 524.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY COUNTIES: 1985 TO 1989

Year	State total	Hono-lulu	Maui	Hawaii	Kauai
1985	68,676	50,058	8,095	7,660	2,863
1986	68,379	48,497	8,535	7,896	3,451
1987	71,987	49,028	10,865	7,436	4,658
1988	74,962	49,401	11,413	8,410	5,738
1989	85,425	52,855	13,733	11,362	7,475
Passenger cars	70,580	43,509	11,563	9,447	6,061
Trucks	14,845	9,346	2,170	1,915	1,414

Source: Hawaii Automobile Dealers' Association, HADA Yearbook (annual).

Table 525.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY MAKE: 1989

Make	Total		Passenger cars		Light trucks	
	Rank	Number	Rank	Number	Rank	Number
All makes	...	85,425	...	70,580	...	14,845
Ford	1	14,778	1	10,971	1	3,807
Chevrolet	2	10,451	2	8,110	2	2,341
Toyota	3	8,449	4	6,855	4	1,594
Nissan	4	8,359	3	7,107	6	1,252
Honda	5	6,829	5	6,826	...	3
Dodge	6	4,801	7	3,085	3	1,716
Mazda	7	3,993	9	2,706	5	1,287
Pontiac	8	3,582	6	3,580	...	2
Buick	9	2,820	8	2,818	...	2
Mercury	10	2,614	10	2,611	...	3
All others	...	18,749	...	15,911	...	2,838

Source: Hawaii Automobile Dealers Association, 1989 HADA Yearbook, p. 6.

Table 526.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY PLACE OF MANUFACTURE: 1988 AND 1989

Year	Total	Domestics 1/	Imported 1/	
			Number	Percent
1988	75,197	38,770	36,427	48.4
1989	85,425	50,923	34,502	40.4

1/ Japanese cars sold in the U.S. with U.S. nameplates are classified as domestic. Cars assembled in the U.S. with Japanese nameplates are classified as imports.

Source: Hawaii Automobile Dealers' Association, 1990 HADA Yearbook, p. 6.

Table 527.-- HAWAII DRIVERS LICENSES IN FORCE, BY COUNTIES: 1984 TO 1989

[As of December 31]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1984	582,218	434,053	65,778	28,801	53,586
1985	593,952	441,278	68,177	29,188	55,309
1986	612,101	453,220	70,493	30,374	58,014
1987	628,027	463,522	72,142	31,831	60,532
1988	634,880	465,331	74,545	33,007	61,997
1989	657,156	478,078	78,448	34,963	65,667

Source: Tabulations by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 528.-- HAWAII DRIVERS LICENSES IN FORCE, BY AGE AND SEX: DECEMBER 31, 1989

Age	Both sexes	Male	Female
Total	657,156	355,586	301,570
15 to 19 years	38,507	21,640	16,867
20 to 24 years	62,012	33,353	28,659
25 to 34 years	165,598	86,464	79,134
35 to 44 years	156,550	82,123	74,427
45 to 54 years	93,497	50,027	43,470
55 to 64 years	73,679	39,649	34,030
65 to 74 years	50,411	30,407	20,004
75 to 84 years	15,674	10,971	4,703
85 years and over	1,228	952	276
Median age (years)	39.0	39.4	38.5

Source: Tabulation by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 529.-- TOTAL 24-HOUR TRAFFIC VOLUMES AT SELECTED OAHU SURVEY SITES: 1987 TO 1989

Site	1987	1988	1989
Pali Highway at tunnels	50,611	50,453	51,503
Likelike Highway at tunnels	48,386	48,358	57,025
H-1 Freeway at Manoa-Palolo Drainage Canal 1/	(NA)	127,367	128,273
H-1 Freeway at Kapalama Drainage Canal Bridge	(NA)	191,286	193,254
Nimitz Highway at Kapalama Drainage Canal Bridge	63,040	69,040	79,870
Kalanianaole Highway east of Ainakoa Ave.	77,413	77,928	79,275

NA Not available.

1/ Includes Kapiolani on- and off-ramps.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 530.-- MOTOR VEHICLE FUEL CONSUMPTION AND VEHICLE MILES: 1979 TO 1989

Year and county	Highway fuel consumption 1/		Vehicle miles of travel	
	Total (1,000 gallons)	Gallons per vehicle 2/	Total (millions)	Per vehicle 2/
1979	339,989	560	4,759.9	7,834
1980	330,734	536	5,570.0	9,019
1981	319,588	492	5,855.7	9,018
1982	323,827	482	6,048.3	9,007
1983	327,769	(NA)	(NA)	(NA)
1984	339,491	473	6,486.3	9,044
1985	345,672	461	6,761.5	9,027
1986	357,716	464	6,970.7	9,034
1987	367,984	461	7,217.2	9,041
1988	378,988	464	7,400.8	9,052
1989	395,945	463	7,748.1	9,062
COUNTIES: 1989				
Honolulu	269,406	452	5,271.5	8,842
Hawaii	58,150	553	1,026.7	9,770
Kauai	22,745	430	546.3	10,326
Maui	45,644	452	903.6	8,956

NA Not available.

1/ Includes gasoline, gasohol, diesel oil, and butane gas. Gasohol was no longer used in motor vehicles after June 1982.

2/ Based on motor vehicle total by county of inspection; includes both taxable and nontaxable vehicles, and all military nonresident exempt vehicles. Data include passenger cars, buses, trucks, and motorcycles but exclude trailers and semi-trailers.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 531.-- MAJOR TRAFFIC ACCIDENTS, TRAFFIC INJURIES, AND TRAFFIC DEATHS, 1978 TO 1988, AND BY COUNTIES, 1988

Year	Major traffic accidents 1/		Persons injured or killed	
	Total	Fatal	Injured only	Killed
1978	18,545	175	13,327	195
1979	19,158	183	13,963	205
1980	18,301	165	13,026	185
1981	16,582	136	11,999	150
1982	16,407	143	11,865	161
1983	16,372	131	11,852	139
1984	17,657	127	12,390	136
1985	19,577	118	12,613	126
1986	20,852	108	10,941	117
1987	23,618	126	11,987	138
1988	26,039	129	12,801	149
COUNTIES: 1988				
Honolulu	20,465	71	8,903	84
Hawaii	2,743	32	1,887	38
Kauai	1,062	11	706	11
Maui	1,769	15	1,305	16

1/ Traffic accidents with damage of $300 or more or causing injury or death.

Source: Hawaii State Department of Transportation, Highways Division, Major Traffic Accidents, State of Hawaii (annual) and records.

Table 532.-- HIGHWAY SPEEDS, BY TYPE OF HIGHWAY: 1983 TO 1988

[Average speeds, in miles per hour. Years ended September 30]

Year	State-wide	Urban inter-state	Rural		
			Inter-state	Other arter-ials	Major collec-tors
1983	54.0	56.7	56.5	51.6	51.8
1984	54.7	56.8	56.8	52.4	53.1
1985	54.8	56.9	58.0	52.3	53.0
1986	55.1	58.4	(NA)	51.4	52.6
1987	55.0	58.4	(NA)	51.3	52.1
1988	1/ 56.2	59.5	(NA)	52.0	52.3

NA Not available.

1/ The corresponding U.S. average was 56.3. Hawaii ranked 29th among the 48 States reporting average speeds.

Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (annual).

Table 533.-- MOTOR CARRIER CHARACTERISTICS, BY COUNTIES: JULY 1990

County	Passenger carriers 1/			Property carriers 2/	
	Number of carriers	Number of vehicles	Seating capacity	Number of carriers	Number of vehicles
State total	1,016	5,103	133,776	2,783	16,782
Hawaii	85	588	21,642	530	2,972
Maui	149	862	20,352	391	1,966
Honolulu	722	3,261	80,146	1,672	10,792
Kauai	60	392	11,636	190	1,052

1/ Includes mostly tour bus operators; excludes public transit (such as MTL, Inc.), school buses, taxicabs, and rental car companies.

2/ Includes truckers, moving companies, etc.

Source: Compiled by Hawaii State Department of Transportation, Motor Vehicle Safety Office, from Hawaii State Department of Commerce and Consumer Affairs, Public Utilities Commission.

Table 534.-- REGISTERED TAXICABS AND BICYCLES, BY ISLANDS: 1988 AND 1989

[As of December 31]

Island	Taxicabs		Bicycles and mopeds	
	1988	1989	1988	1989
State total	1/ 1,765	1/ 1,775	113,311	92,525
Hawaii	95	96	3,780	3,651
Maui	123	156	2,472	2,045
Lanai	1	2	180	94
Molokai	-	6	258	180
Oahu	1,546	1,515	103,529	81,930
Kauai	(NA)	(NA)	3,092	4,625

NA Not available.

1/ Excludes Kauai.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

Table 535.-- STEAM RAILROAD MILEAGE AND PASSENGERS: 1980 TO 1989

[Data are for the Lahaina, Kaanapali and Pacific Rail Road, the only passenger railroad in the State]

Calendar year	Miles of track	Passengers	Calendar year	Miles of track	Passengers
1980	6	111,699	1985	6	199,759
1981	6	128,178	1986	6	215,735
1982	6	155,059	1987	6	244,555
1983	6	171,892	1988	6	285,139
1984	6	197,8[illegible]	1989	6	296,391

Source: Lahaina, Kaanapali and Pacific Rail Road, records.

Table 536.-- PUBLIC TRANSIT, FOR OAHU: 1979 TO 1989

[Service provided by City and County of Honolulu bus system]

Year	Number of buses, Dec. 31	Bus mileage 1/	Total passengers 2/	Revenues 3/ (dollars)
1979	350	15,915,000	68,765,000	9,931,000
1980	400	16,579,392	71,601,744	17,388,760
1981	400	16,748,338	73,546,802	17,991,735
1982	400	16,767,816	74,109,528	18,269,144
1983	395	16,654,568	75,051,618	18,157,876
1984	440	16,774,564	76,260,187	18,819,782
1985	440	16,938,692	74,816,485	18,952,566
1986	459	17,065,875	74,410,104	18,802,330
1987	460	16,733,510	74,066,369	18,659,459
1988	470	17,124,317	74,467,760	18,824,046
1989	475	17,525,608	74,964,453	18,843,083

1/ Estimated number of revenue vehicle miles.

2/ Estimated number of revenue passengers, including senior citizens and handicapped.

3/ Fiscal year ended June 30, 1979; calendar years, 1980 forward.

Source: MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 537.-- PUBLIC TRANSIT PASSENGERS, BY FARE CATEGORY, FOR OAHU: 1987 TO 1989

[Calendar year data for City and County of Honolulu bus system]

Fare category	1987	1988	1989
All passengers	74,066,369	74,467,760	74,964,453
Adults, full fare	42,489,644	43,182,518	43,699,952
Students	11,820,592	11,533,291	11,558,225
School subsidy	352,692	311,027	242,201
Stadium express	10,152	10,309	11,249
Senior citizens and handicapped	14,103,035	14,197,265	14,319,192
Chartered service	10,674	4,967	-
Free transfers	5,279,580	5,228,383	5,133,592

Source: MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 538.-- BUS FARE CHRONOLOGY, FOR OAHU: 1971 TO 1990

[In dollars]

Effective date	Cash fares 1/		Monthly passes	
	Adult	School	Adult	School
March 1, 1971	.25	.15	...	...
March 2, 1971	.25	.10	...	...
June 9, 1972 2/	.25, .50	.10, .25	...	...
March 15, 1974	.25	.10	...	...
November 1, 1979	.50	.25	15.00	7.50
June 18, 1984 3/	.60	.25	15.00	7.50

1/ In addition, there have been special fares for children, handicapped persons, senior citizens, service to and from Pearl Harbor, and the Stadium Express during many of these years.

2/ Zone fares initiated.

3/ Current fares as of September 1, 1990.

Source: City and County of Honolulu, Department of Transportation Services, records.

Table 539.-- AUTOMOTIVE RENTAL AND LEASING WITHOUT DRIVERS (SIC 751) ESTABLISHMENTS WITH PAYROLL, BY COUNTIES: 1987

Subject	State total 1/		Counties (SIC 751)			
	SIC 751	SIC 7514	Honolulu	Hawaii	Kauai	Maui
No. of establishments ..	101	77	48	19	11	23
Receipts (mil. dol.) ...	243.3	231.1	134.5	23.5	23.9	61.4

1/ Most of the receipts for SIC 751 were reported in SIC 7514, passenger car rental. Other subgroups under SIC 751 were SIC 7513, truck rental and leasing, without drivers; SIC 7515, passenger car leasing; and SIC 7519, utility trailer and recreational vehicle rental.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a, 4a, 7, and 8a.

Table 540.-- U-DRIVE WEEKDAY AVERAGE DAILY RATES, BY SIZE OF PASSENGER CAR, FOR OAHU: 1989 AND 1990

[Average rates for nonresidents, including collision damage waiver insurance, reported by Avis, Hertz, National, and Alamo]

Date	Sub-compact	Compact	Mid-size	Full-size
October 18, 1989	37.93	38.92	43.68	48.94
August 13, 1990	39.97	46.46	49.71	57.21

Source: Information provided by listed companies.

Table 541.-- AIRPORTS AND HELIPORTS, BY CONTROL, BY ISLANDS: DECEMBER 31, 1989

Island	Airports 1/				Heliports 2/	
	State					
	Commercial	General aviation	Military	Semi-private	State: commercial	Semi-private
State total	7	7	6	2	1	14
Hawaii	2	2	1	-	-	8
Maui	1	1	-	1	-	2
Kahoolawe	-	-	-	-	-	-
Lanai	1	-	-	-	-	-
Molokai	1	1	-	-	-	-
Oahu	1	2	3	-	1	1
Kauai	1	1	1	1	-	3
Niihau	-	-	-	-	-	-
Kure Atoll	-	-	1	-	-	-

1/ Excludes private airports (not available).

2/ Excludes military and private heliports (not available).

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 542.-- AIRCRAFT OPERATIONS FOR SPECIFIED AIRPORTS: 1979 TO 1989

[An aircraft operation is an aircraft arrival or departure]

Year	Honolulu International Airport	Hilo International Airport 1/	Keahole Airport	Kahului Airport	Lihue Airport	Molokai Airport
1979	412,739	51,703	92,235	127,477	71,033	72,024
1980	375,408	49,969	66.944	111,573	62,829	67,761
1981	339,359	53,274	57,488	102,760	59,404	61,876
1982	308,728	47,964	51,889	112,428	65,305	69,142
1983	333,038	54,470	66,581	124,288	71,739	54,882
1984	343,818	62,543	83,320	142,311	100,992	53,513
1985	357,511	61,225	93,879	157,231	131,755	56,048
1986	368,049	61,514	81,467	174,560	143,905	52,268
1987	385,275	80,123	67,497	165,920	134,495	50,829
1988	377,919	85,267	56,584	173,053	122,268	50,456
1989	403,635	93,202	55,674	177,803	116,742	47,208

1/ Formerly General Lyman Field; new name became effective July 1, 1989.

Source follows next table.

Table 543.-- RANK OF HONOLULU INTERNATIONAL AIRPORT IN OPERATIONS AND ENPLANED PASSENGERS: 1987 AND 1988

Subject	Rank 1/		Number	
	1987	1988	1987	1988
Total aircraft operations	16	23	385,260	376,893
Air carrier operations	17	23	216,044	184,856
Total enplaned passengers 2/ ...	17	15	7,773,253	8,396,313

1/ Among all FAA-operated airport traffic control towers in the United States.

2/ For large scheduled certificated air carriers, both scheduled and nonscheduled operations.

Source: FAA Statistical Handbook of Aviation for 1987 (pp. 31 and 97) and 1988 (pp. 24 and 82).

Table 544.-- AIRCRAFT OPERATIONS, BY TYPE OF AIRCRAFT, AT MAJOR STATE OWNED AIRPORTS: 1989

[An FAA directive dated December 8, 1987 requires all aircraft with 60 seats or less to be designated as air taxis, even if such aircraft are operated by a designated air carrier. This reclassification especially affects the data for Molokai Airport]

Airport	All movements	Air carrier	Air taxi	General aviation	Military
Honolulu International ..	403,635	194,347	64,348	100,287	44,653
Hilo International	93,202	17,262	26,564	32,456	16,920
Kahului	177,803	56,981	63,444	49,823	7,555
Lihue	116,742	32,433	70,526	7,599	6,184
Keahole	55,674	24,170	12,868	12,881	5,755
Molokai	47,208	14	35,743	9,295	2,156

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 545.-- TRANSPACIFIC AND INTERISLAND AIR CARRIERS SERVING HAWAII: 1987 TO 1990

[As of June 30. Includes both scheduled and nonscheduled service, and also commuter lines and other air taxi service]

Service	1987	1988	1989	1990
All carriers	33	34	44	43
Transpacific only	25	25	27	26
Domestic	12	10	12	11
Foreign	13	15	15	15
Transpacific and interisland	2	2	5	4
Interisland only	6	7	12	13
Passenger carriers	6	5	8	9
Cargo and mail only	-	2	4	4

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 546.-- CIVIL FLYING: 1985 TO 1988

Item	1985	1986	1987	1988
Aircraft facilities, Dec. 31	50	51	54	54
Airports	36	34	35	35
Heliports	14	17	19	19
Public aircraft facilities, Dec. 31 ...	16	18	18	18
Paved and lighted facilities, Dec. 31 .	12	12	12	12
Large aircraft in operation, Dec.	49	54	57	51
Aloha Airlines	8	11	10	12
Hawaiian Airlines	21	24	29	31
Mid Pacific Airlines	20	19	18	8
General aviation: 1/				
Active civil aircraft, Dec.	348	366	486	600
Standard error	109	118	140	153
Hours flown (1,000)	137	182	163	426
Standard error (1,000)	56	81	75	133
Active personnel, Dec. 31:				
Pilots, except instructors	3,256	3,327	3,373	3,598
Flight instructors	267	246	271	293
Nonpilot airmen 2/	2,498	2,609	2,778	3,008

1/ Aircraft based in Hawaii. Data based on samples with specified standard errors.

2/ Mechanics, parachute riggers, ground instructors, dispatchers, control tower operators, flight navigators, and flight engineers.

Source: U.S. Department of Transportation, Federal Aviation Administration, FAA Statistical Handbook of Aviation (annual).

Table 547.-- OVERSEAS AND INTERISLAND AIR PASSENGER MOVEMENTS: 1979 TO 1989

[Calendar years. Data include both revenue and non-revenue passengers]

Year	Overseas passengers 1/			Inter-island passenger arrivals
	Arrivals	Departures	Through	
1979 ..	4,245,032	4,148,645	971,452	7,578,877
1980 ..	4,270,633	4,174,739	1,118,987	6,737,894
1981 ..	4,290,752	4,292,159	1,032,264	6,724,113
1982 ..	4,669,747	4,641,716	882,832	7,327,447
1983 ..	4,760,459	4,714,689	777,490	7,037,687
1984 ..	5,263,213	5,261,373	727,947	7,632,239
1985 ..	5,317,862	5,293,528	858,501	7,878,598
1986 ..	6,041,078	6,083,508	841,241	8,340,048
1987 ..	6,265,211	6,317,747	1,109,850	8,802,594
1988 ..	6,653,346	6,713,621	1,421,707	8,964,928
1989 ..	7,022,986	7,234,653	1,167,954	9,634,077

1/ Includes West Coast, Canada, Europe, and the Central and South Pacific.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 548.-- PASSENGERS, CARGO, AND MAIL, OVERSEAS AND INTERISLAND, BY AIRPORT: 1989

Airport	Passengers 1/		Cargo (tons)		Mail (tons)	
	Enplaned	Deplaned	Enplaned	Deplaned	Enplaned	Deplaned
OVERSEAS						
Total	7,234,653	7,022,986	156,701	150,837	14,129	16,771
Honolulu	6,552,927	6,284,443	148,177	140,302	14,103	16,766
Hilo	-	-	-	-	-	-
Kahului	524,228	557,183	4,356	7,486	26	5
Keahole	101,238	112,851	3,906	2,289	-	-
Lihue	56,260	68,509	262	760	-	-
INTERISLAND						
Total	9,634,077	9,634,077	73,480	73,480	10,353	10,353
Honolulu	4,302,111	4,309,905	48,210	22,443	6,161	4,006
Hilo	651,931	673,741	16,354	10,772	1,147	1,508
Upolu	-	4	2	4	-	-
Waimea-Kohala ...	9,590	9,047	244	93	-	-
Keahole	955,391	928,451	2,676	7,942	787	1,221
Kahului	1,832,837	1,831,267	3,850	18,866	1,446	2,374
Hana	13,042	12,254	-	8	-	-
Molokai	168,112	170,868	314	452	58	18
Kalaupapa	8,002	7,249	2	67	-	-
Lanai	51,852	52,708	28	681	4	-
Lihue	1,382,304	1,369,996	1,640	11,706	748	1,225
Other airports 2/	258,905	268,587	160	446	2	1

1/ Revenue and non-revenue, excluding Military Airlift Command (MAC). Also excludes overseas passengers in transit (1,167,954, all passing through Honolulu International Airport).

2/ Kapalua West Maui and Princeville (Kauai).

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 549.-- AIR CARGO AND AIRMAIL: 1979 TO 1989

[In thousands of pounds]

Calendar year	Overseas air cargo		Overseas airmail		Interisland	
	Out-going	In-coming	Out-going	In-coming	Air cargo: incoming	Airmail: incoming
1979	121,702	121,205	17,497	17,577	118,555	15,364
1980	130,586	114,673	21,105	19,581	138,008	13,576
1981	151,513	101,301	22,388	19,887	132,559	14,131
1982	155,278	105,388	21,280	25,006	114,038	15,014
1983	174,582	136,354	23,620	28,288	109,828	16,024
1984	196,215	153,654	23,356	29,497	111,472	16,282
1985	180,470	150,295	21,657	22,119	101,700	16,072
1986	200,255	184,894	22,842	23,725	114,657	16,913
1987	234,098	212,717	23,560	29,004	122,481	17,561
1988	284,783	247,174	27,764	31,028	130,203	18,847
1989	313,402	301,674	28,258	33,542	146,960	20,706

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 550.-- HELICOPTER TOURS: 1977 TO 1990

Subject	1977	1982	1985	1987	1988	1989	1990
Companies	9	14	25	36	36	36	37
Aircraft	15	26	48	71	74	74	78

Source: Hawaii Helicopter Operators Association, records.

Table 551.-- FLIGHTS SCHEDULED TO DEPART HONOLULU INTERNATIONAL AIRPORT, BY DESTINATION: APRIL 1990

[Data for the 559 transpacific flights scheduled to depart from Honolulu during a one-week period]

Destination	Flights during week		
	Total	Final destination	Intermediate point
Tokyo	67	54	13
Osaka	28	28	-
Hong Kong	-	-	-
Manila	12	12	-
Singapore	6	6	-
Sydney	39	22	17
Auckland	28	14	14
Melbourne	17	17	-
Guam	14	14	-
Seattle	21	7	14
Portland	14	14	-
San Francisco	80	71	9
Los Angeles	148	132	16
Denver	10	7	3
Dallas/Fort Worth	29	22	7
Chicago	22	22	-
Atlanta	12	12	-
New York	14	14	-
All others	125	98	27

Source: Greeters of Hawaii, Jiffisked April 1990. Courtesy of Greeters of Hawaii, P. O. Box 29638, Honolulu, HI 96820.

Table 552.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR FLIGHTS BY UNITED AIRLINES BETWEEN SAN FRANCISCO AND HONOLULU: 1980 TO 1990

[Updated to August 9, 1990]

Effective date of change in fare		Regular one-way fares, including taxes (dollars)			Flight time 1/ (hours, min.)
		First class	Coach, weekend	Coach weekday	
1980:	Jan. 1	302.12	209.08	199.08	5:02
	June 1	319.13	221.09	211.08	5:02
	Aug. 1	351.14	243.10	233.09	5:02
	Oct. 1	365.11	252.08	252.08	5:02
1981:	Jan. 20	384.12	265.08	265.08	5:02
	Mar. 31	415.12	286.09	286.09	5:02
	June 17	425.13	296.09	296.09	5:02
	Oct. 1	392.12	280.08	280.08	5:00
1982:	Mar. 1	412.12	219.07	219.07	5:00
	Apr. 1	412.12	310.09	310.09	5:00
	June 1	412.12	328.10	328.10	5:00
	Sept. 1	415.16	331.13	331.13	5:00
1983:	June 15	415.16	353.14	353.14	5:00
1984:	Sept.	415.00	353.14	353.14	5:00
	Oct.	415.00	353.00	353.00	5:02
	Dec.	454.00	364.00	364.00	5:02
1986:	Nov. 14	576.00	459.00	459.00	5:03
1987:	Apr. 11	588.00	469.00	469.00	5:00
	June 5	598.00	479.00	479.00	5:00
	June 30	605.00	486.00	486.00	5:00
	Aug. 7	613.00	494.00	494.00	5:00
1989:	Feb. 4	718.00	514.00	514.00	5:06
	June 3	733.00	524.00	524.00	5:05
1990:	Jan. 4	762.00	545.00	545.00	5:05
	Feb. 14	771.00	554.00	554.00	5:05

1/ Average scheduled flight time eastbound and westbound, by B-747 or DC-10 aircraft. Flight time varies seasonally.

Source: United Airlines, records.

Table 553.-- AIR FARES BETWEEN HONOLULU AND LOS ANGELES, SAN FRANCISCO, AND SEATTLE, FOR MAJOR AIRLINES: JULY 1, 1990

[Dollars. Includes taxes]

Carrier and fare category	Los Angeles	San Francisco	Seattle
United Airlines, one-way:			
First class	815	771	850
Coach (unrestricted)	484	459	473
United Airlines, round-trip:			
First class	1,630	1,542	1,700
Coach (unrestricted)	968	918	946
Major carriers, lowest round-trip:			
United Airlines 1/	398	398	438
Lowest carrier	398	398	438
Highest carrier	442	466	484
Average	411	415	454

1/ Coach fare, restricted. Requires 14-day advance notice, departure only on Tuesday, Wednesday, or Thursday, and 30-day maximum stay. No one-way fare available.

Source: United Airlines, records; Sunday Star-Bulletin & Advertiser, July 1, 1990, p. F-3.

Table 554.-- REGULAR ONE-WAY "KAMAAINA" FARES AND SCHEDULED FLIGHT TIMES FOR SPECIFIED INTERISLAND FLIGHTS BY HAWAIIAN AIRLINES, BY TYPE OF AIRCRAFT: 1982 TO 1990

[Updated to July 24, 1990. "Kamaaina" fares are available only to Hawaii residents]

Effective date of change in fare	Honolulu-Lihue		Honolulu-Kahului		Honolulu-Hilo	
	DC-9 1/	DASH-7	DC-9 1/	DASH-7	DC-9 1/	DASH-7
FARES 2/						
1982: May 1	46.00	46.00	46.00	46.00	56.00	56.00
June 1	48.00	48.00	48.00	48.00	58.00	58.00
Aug. 1	53.00	53.00	53.00	53.00	63.00	63.00
Sept. 1	54.50	54.50	54.50	54.50	65.00	65.00
1983: Feb. 1	45.00	45.00	45.00	45.00	45.00	45.00
July 1	49.95	49.95	49.95	49.95	49.95	49.95
Oct. 30	49.95	29.95	49.95	29.95	49.95	29.95
Dec. 16	49.95	41.95	49.95	41.95	49.95	41.95
Dec. 22	49.95	33.95	49.95	33.95	49.95	33.95
1984: Jan. 20	49.95	41.95	49.95	41.95	49.95	41.95
May 28	49.95	43.95	49.95	43.95	49.95	43.95
Nov. 15	52.95	46.95	52.95	46.95	52.95	46.95
Dec. 16	52.95	37.95	52.95	37.95	52.95	37.95
1985: Jan. 7	52.95	34.95	52.95	34.95	52.95	34.95
Mar. 11	52.95	36.95	52.95	36.95	52.95	36.95
Apr. 28	52.95	38.95	52.95	38.95	52.95	38.95
July 1	44.95	37.95	44.95	37.95	44.95	37.95
Aug. 1	46.95	38.95	46.95	38.95	46.95	38.95
1987: Mar. 1	48.95	46.95	48.95	46.95	48.95	46.95
1988: Oct. 31	41.95	39.90	41.95	39.90	41.95	39.90
1989: Feb. 1	41.95	41.95	41.95	41.95	41.95	41.95
May 8	44.95	44.95	44.95	44.95	44.95	44.95
1990: June 16	49.95	49.95	49.95	49.95	49.95	49.95
July 24	39.50	39.50	39.50	39.50	39.50	39.50
FLIGHT TIMES 3/						
1982-1984	26	34	27	34	40	60
1985-1987	25	33	26	33	40	58
1988-1990	27	44	27	41	41	4/ 155

1/ DC-9-50 and DC-9-80 from May 1981 through 1985; DC-9-15, DC-9-50, and DC-9-80 thereafter.

2/ Total regular one-way fare, including taxes and other charges, in dollars.

3/ Average non-stop scheduled flight time eastbound and westbound, in minutes.

4/ Includes three stopovers (Molokai, Kapulua, and Kahului).

Source: Hawaiian Airlines, records.

Table 555.-- STATE COMMERCIAL HARBORS: 1990

Island and harbor	Harbor entrance depth (feet)	Harbor basin			Piers (linear feet)	Storage area (1,000 square feet)	
		Depth (feet)	Length (feet)	Width (feet)		Shedded	Open
Hawaii:							
Hilo	35	35	2,300	1,400	2,787	122	496
Kawaihae	40	35	1,500	1,450	1,012	23	166
Maui:							
Kahului	35	35	2,400	2,050	3,019	124	703
Molokai:							
Kaunakakai	23	23	1,500	600	691	10	123
Oahu:							
Honolulu:							
Main	45	40	3,300	1,520	28,007	1,733	7,812
Kapalama		40	3,400	1,000			
Barbers Point .	42	38	2,100	1,800	1,600	-	1,280
Kauai:							
Nawiliwili	40	35	1,950	1,540	1,291	66	291
Port Allen	35	35	1,500	1,200	1,200	35	32

Source: Hawaii State Department of Transportation, Harbors Division, unpublished data, October 12, 1990.

Table 556.-- LIGHTHOUSES AND RELATED FACILITIES, BY ISLANDS: DECEMBER 1989

[Includes all lights, day beacons, buoys, and similar aids to navigation in the Hawaiian Archipelago]

Island	Number of facilities		Greatest range (nautical-miles)	Highest above--	
	Total	Light-houses		Sea level (feet)	Ground (feet)
Total	418	22	1/ 25	2/ 931	3/ 138
Hawaii	63	11	24	156	115
Maui	36	4	24	170	48
Molokini	1	-	7	188	30
Kahoolawe	1	-	7	120	20
Lanai	14	1	8	91	13
Molokai	19	1	25	213	138
Oahu	218	3	25	931	71
Kauai	39	2	25	174	80
Niihau	-	-	-	-	-
Lehua	1	-	7	704	10
Midway	25	-	4	43	(NA)
At sea	1	-	-	-	-

NA Not available.

1/ Molokai Light, Kaena Point Light, and Kilauea Light.

2/ Kaena Point Light.

3/ Molokai Light.

Source: U.S. Coast Guard, Light List, Vol. 6, Pacific Coast and Pacific Islands, as corrected through December 1989.

Table 557.-- UNDOCUMENTED STATE-REGISTERED VESSELS: DECEMBER 31, 1989

Subject	Number
Certificates outstanding .	13,501
Length:	
Under 16 feet	5,409
16 to less than 20 feet	3,910
20 to less than 40 feet	3,990
Over 40 feet	192
Median (feet)	17.4
Hull material:	
Wood	1,325
Fiberglass	10,369
Metal	530
Inflatable	1,039
Other	238
Propulsion	
Inboard	949
Outboard	8,031
Inboard/outboard	2,015
Sail/inboard	542
Sail/outboard	550
Sail only	874
Manual	257
Other	283
Type of storage:	
On water	2,423
On land	11,078
Type of vessel:	
Cabin motorboat	2,026
Open motorboat	6,220
Runabout	2,743
Sail/inboard	542
Sail/outboard	550
Sail only	874
Motor vessel over 65 feet .	6
Other	540
Uses:	
Pleasure	11,524
Commercial fishing	1,117
Charter fishing	25
Commercial passenger	237
Other commercial	66
Livery	200
Dealer or manufacturer	40
Youth group	38
Government	204
Other	50
Island kept:	
Hawaii	1,987
Kauai	1,091
Lanai	50
Maui	1,266
Molokai	181
Oahu	8,926

Source: Hawaii State Department of Transportation, Harbors Division, Report of Undocumented Vessel Registration (annual).

Table 558.-- DOCUMENTED AND NUMBERED VESSELS REGISTERED IN HAWAII: 1985 TO 1990

Category	1985	1986	1987	1988	1989	1990
Documented 1/	1,306	1,348	1,389	1,380	1,600	1,700
Numbered 2/	13,443	14,052	14,008	14,250	13,501	...

1/ Vessels documented under the laws of the United States with the U.S. Coast Guard in Hawaii. All vessels over five net tons, used for commercial purposes, must be documented. In addition, yachts over five net tons may be documented. As of June 30.

2/ Non-documented numbered vessels registered with the Hawaii State Department of Transportation. Any mechanically propelled boat (including those with auxiliary engines), and any boat powered solely by sail if over eight feet in length, must be numbered. As of December 31.

Source: U.S. Coast Guard, Marine Safety Office, records; Hawaii State Department of Transportation, Report of Undocumented Vessel Registration (annual).

Table 559.-- BOATING ACCIDENTS: 1985 TO 1989

Year	Number of accidents		Number of persons		Number of vessels involved	Amount of damage ($1,000)
	Total	Fatal	Killed	Injured non-fatally		
1985	41	2	5	10	50	417.3
1986	54	3	3	14	69	293.0
1987	62	1	2	18	76	720.2
1988	31	4	5	11	41	209.6
1989	40	1	1	28	48	216.8

Source: U.S. Department of Transportation, Coast Guard, Boating Statistics (annual); Hawaii State Department of Transportation, Harbors Division, Boating Branch, Reportable Boating Accident Statistics for Period 1987 to 1989, and records.

Table 560.-- HARBOR DEPTHS AND VESSEL ARRIVALS, BY DRAFT: 1988

[Excludes domestic fishing craft]

Harbor	Controlling depth (feet)		Inbound vessels, by draft		
	Entrance channel	Basin	Total	18 feet and less	19 feet and more
Hilo	...	32.0	987	922	65
Kawaihae	42.0	36.0	660	647	13
Kahului	...	32.0	1,451	1,419	32
Kaumalapau	...	...	654	654	-
Kaunakakai	...	...	682	(NA)	(NA)
Kalaupapa	...	...	6	6	-
Honolulu	43.0	39.0	1/ 7,929	7,247	682
Barbers Point ..	42.0	38.0	458	354	104
Nawiliwili	41.0	33.0	643	631	12
Port Allen	...	...	75	(NA)	(NA)

NA Not available.

1/ By type of vessel: self propelled, 4,974 (2,847 passenger and dry cargo, 92 tanker, 2,035 towboat or tugboat); non-self propelled, 2,955 (2,376 dry cargo, 579 tanker).

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1988, Part 4 (1990), pp. 30-36 and 111-112.

Table 561.-- SHIP ARRIVALS AT THE PORT OF HONOLULU: 1980 TO 1990

[Years ended June 30]

Year	Overseas vessels		Interisland vessels	
	Number	Gross tonnage	Number	Gross tonnage
1980	1,963	10,483,980	2,338	2,572,778
1981	1,968	10,959,161	2,597	2,670,405
1982	1,943	9,604,985	2,496	2,598,632
1983	1,775	10,406,544	2,662	2,623,321
1984	1,686	10,397,905	2,660	3,649,085
1985	1,749	9,398,179	2,412	4,480,660
1986	1,825	9,450,373	2,697	4,913,219
1987	2,080	9,974,948	2,848	5,200,667
1988	2,014	10,548,893	3,172	(NA)
1989	2,024	11,219,662	3,101	(NA)
1990	2,159	11,752,880	3,212	(NA)

NA Not available.

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 562.-- OVERSEAS AND INTERISLAND PASSENGER ARRIVALS AND DEPARTURES, FOR HONOLULU HARBOR: 1985 TO 1990

[Fiscal years ended June 30]

Type of passenger	1985	1986	1987	1988	1989	1990
Overseas:						
In	5,337	6,537	8,681	5,815	15,993	9,770
Out	5,276	6,190	8,103	5,350	16,716	9,084
Interisland:						
In	72,665	84,943	71,049	77,731	78,710	67,199
Out	74,304	82,895	69,337	71,804	78,711	67,199

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 563.-- OVERSEAS AND INTERISLAND SHIPPING: 1983 TO 1988

[In short tons]

Calendar year	Overseas cargo			Interisland cargo		
	Total	In	Out	Total	In	Out
1983 ...	11,853,502	9,371,317	2,482,185	8,337,860	4,285,416	4,052,444
1984 ...	11,506,043	8,972,870	2,533,173	8,973,092	4,530,456	4,442,636
1985 ...	11,647,021	9,098,694	2,548,327	7,839,743	3,836,113	4,003,630
1986 ...	10,521,866	8,451,641	2,070,225	8,464,107	4,241,904	4,222,203
1987 ...	12,379,815	9,767,966	2,611,849	10,358,749	5,071,134	5,287,615
1988 ...	13,140,832	11,019,824	2,121,008	10,844,603	5,267,754	5,576,849

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States (annual) and printouts, as tabulated by the Hawaii State Department of Transportation, Harbors Division.

Table 564.-- FREIGHT AND PASSENGER TRAFFIC FOR SPECIFIED HARBORS: 1984 TO 1988

Harbor	1984	1985	1986	1987	1988
FREIGHT 1/ (SHORT TONS)					
Hilo	1,570,528	1,318,518	1,198,692	1,365,768	1,455,589
Kawaihae	545,508	526,639	592,018	871,202	654,600
Kahului	1,889,204	1,516,509	1,626,650	2,035,247	2,156,631
Honolulu	8,469,971	7,986,133	8,603,760	9,736,688	10,654,845
Barbers Point	6,564,687	6,751,709	5,629,312	7,135,064	7,511,140
Nawiliwili	944,770	933,477	745,396	916,422	875,753
PASSENGERS 2/					
Honolulu	741,922	1,102,398	708,268	154,082	825,377

1/ Excludes cargo carried by Army and Navy vessels and cargo in transit.

2/ Total arrivals and departures for transpacific, interisland, and local travel.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1988, Part 4 (1990), pp. 30-37.

Table 565.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1988

[In short tons. Commodities under 150,000 tons not shown separately]

Harbor and commodity	Total 1/	Foreign		Interstate		Interisland	
		Im-ports	Ex-ports	Re-ceipts	Ship-ments	Re-ceipts	Ship-ments
Hilo	1,455,589	15,818	65,089	46,776	75,957	985,682	266,257
Petro. & coal prod. NEC .	195,561	-	-	-	-	194,622	899
Fabricated metal products	243,312	-	-	13	-	141,523	101,776
Kawaihae	654,600	31,892	16,039	7,906	84,029	314,327	200,107
Kahului	2,156,631	16,658	156	45,454	135,909	1,314,785	643,669
Sand, gravel, crushed rock	202,722	-	-	-	-	12,067	190,655
Petro. & coal prod. NEC .	204,637	-	-	-	-	190,691	13,946
Fabricated metal products	339,361	1	15	362	-	204,174	134,809
Motor vehicles, parts, and equipment	180,011	3,975	4	83	-	111,974	63,975
Kaumalapau	272,881	-	-	1,942	-	95,843	175,096
Fresh fruits	178,789	-	-	-	-	11,767	167,022
Barbers Point	7,511,140	2,714,076	345,198	3,624,064	417,903	99,852	310,047
Crude petroleum	5,283,400	2,257,175	-	3,026,225	-	-	-
Distillate fuel oil	566,848	36,045	39,487	265,520	225,796	-	-
Residual fuel oil	1,179,674	420,856	304,433	297,520	20,112	78,869	57,884
Petro. & coal prod. NEC .	228,680	-	-	-	-	-	228,680
Honolulu	10,654,845	1,560,375	151,737	2,917,957	741,850	1,652,622	3,336,151
Fresh fruits	276,134	1,336	45	20,933	61,927	178,846	13,047
Crude petroleum	1,002,080	1,002,080	-	-	-	-	-
Sand, gravel, fresh rock	215,470	275	-	2,268	7,297	177,862	27,768
Vegetables & prep. NEC ..	177,839	3,970	460	96,238	4,668	44,717	27,786
Prepared fruit & vegetable juice NEC	396,733	2,724	3,874	6,182	256,956	126,667	330
Molasses	214,368	-	11	-	135,632	78,725	-

Continued on next page.

Table 565.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1988 - Con.

Harbor and commodity	Total 1/	Foreign		Interstate		Interisland	
		Im-ports	Ex-ports	Re-ceipts	Ship-ments	Re-ceipts	Ship-ments
Honolulu - Con.							
Alcoholic beverages	204,807	7,880	1,129	160,073	636	248	34,841
Misc. Food Products	289,034	7,407	5,552	27,176	2,714	99,717	146,468
Lumber	234,660	248	2,506	175,643	843	2,939	52,481
Gasoline	213,137	15	-	96,220	-	-	115,832
Jet fuel	407,489	77,884	-	289,549	-	-	37,586
Distillate fuel oil	353,836	-	9,263	113,914	31,878	1	177,227
Residual fuel oil	667,338	18,698	9,181	4,651	5,698	57,884	321,058
Petro. & coal prod. NEC .	495,948	1	-	15,491	-	96,224	365,530
Building cement	263,954	137,370	-	5,476	-	2,775	118,333
Fabricated metal product	1,064,876	4,948	1,556	67,077	554	410,573	580,168
Motor vehicles, parts, equipment	717,104	37,069	462	101,253	34,815	155,720	387,785
Commodities, NEC	868,873	728	2,072	349,433	25,282	46,482	444,376
Pearl Harbor	81,507	-	-	8,879	1,185	22,609	48,834
Nawiliwili	875,753	10,014	-	17,791	85,956	532,391	229,601
Fabricated metal products	230,321	-	-	64	-	119,866	110,391
Kalaupapa	2,000	-	-	-	-	1,488	512
Kaunakakai	197,186	-	-	222	-	124,502	72,462
Port Allen	123,303	-	-	-	-	123,303	-

1/ Includes internal shipments and local traffic, not separately shown. Such movements amounted to 294,153 tons, all at Honolulu.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1988, Part 4 (June 1990), pp. 30-37, and unpublished printouts.

Section 19

AGRICULTURE

This section presents statistics on agricultural land, farms, crops, livestock, dairy products, poultry, and aquaculture. Related information appears in Sections 6 (on land use), 12 and 15 (agricultural employment and earnings), and 22 (food processing).

There were 4,650 farms in Hawaii in 1989, with a total area of 1.72 million acres. The value of crop sales in 1989 was $485 million, or 34 percent higher than the total for 1979. Livestock sales amounted to $92 million, or 17 percent more than the 1979 level. Combined crop and livestock sales in 1989 ranged from $65 million in Kauai County to $203 million on the Big Island. Major crops were sugar ($211 million in sales, down 3 percent over the decade), pineapple ($95 million, or 38 percent over the 1979 total), flowers and nursery products ($62 million, or 200 percent more than in 1979), and macadamia nuts ($45 million, up 168 percent). Diversified crops, defined as all crops other than sugar and pineapple, rose from $76 million in 1979 to $180 million in 1989, or approximately 137 percent. About 710 farms sold $62 million of flowers and nursery products in 1989, chiefly anthuriums, potted foliage, and orchids. Important products of livestock farms as of 1989 included cattle and calves ($31 million in sales), milk ($32 million), and eggs ($15 million). In 1989, Hawaii produced 30 percent of the fresh market vegetables consumed locally, 45 percent of the fresh market fruits, 30 percent of the beef and veal, 18 percent of the pork, 17 percent of the chickens, and 92 percent of the eggs.

Aquaculture has been growing in importance in recent years, with an aggregate value rising from $11,000 in 1970 to $6.8 million in 1989. Shellfish production amounted to 706,000 pounds in 1989, with a value of $3.8 million.

Statistics on Hawaiian agriculture exclude marijuana and other illicit plants. Authorities confiscated $1.6 billion worth of marijuana in 1989, but the proportion escaping detection is unknown.

Important sources for data on agriculture include the United States Census of Agriculture, most recently conducted in 1987, the annual report on Statistics of Hawaiian Agriculture issued by the Hawaii Agricultural Statistics Service, and data compiled by the Hawaiian Sugar Planters' Association and the Aquaculture Development Program of the Department of Land and Natural Resources. Agricultural data for earlier years are summarized in Historical Statistics of Hawaii, Section 13. National statistics appear in Section 23 of the Statistical Abstract of the United States: 1990.

Table 566.-- FARMS, LAND IN FARMS, AND SELECTED ITEMS: 1987 AND 1982

Item	All farms		Farms with sales of $10,000 or more	
	1987	1982	1987	1982
Farms .... number ..	4,870	4,595	2,049	1,775
Land in farms .... acres ..	1,721,521	1,957,501	1,634,955	1,858,568
Average size of farm acres ..	353	426	798	1,047
Value of land and buildings:				
Average per farm ... dollars ..	603,435	778,471	1,096,618	1,693,553
Average per acre ... dollars ..	1,707	1,826	1,374	1,617
Estimated market value of all machinery and equipment:				
Average per farm ... dollars ..	41,208	41,735	85,275	94,031
Farms by size:				
1 to 9 acres	2,855	2,743	976	820
10 to 49 acres	1,401	1,261	734	629
50 to 179 acres	341	320	151	145
180 to 499 acres	128	126	62	64
500 to 999 acres	31	33	21	21
1,000 acres or more	114	112	105	96
Total cropland .... farms ..	4,170	3,836	1,814	1,536
acres ..	327,396	346,113	299,180	324,830
Harvested cropland ..... farms ..	3,837	3,538	1,758	1,485
acres ..	152,719	155,960	145,422	149,843
Irrigated land .... farms ..	1,827	1,544	975	777
acres ..	148,884	145,982	146,907	143,986
Market value of agricultural products sold .... $1,000 ..	609,740	558,608	600,637	549,601
Average per farm ... dollars ..	125,203	121,569	293,137	309,635
Crops, including nursery and greenhouse crops .... $1,000 ..	498,317	456,069	491,320	449,457
Livestock, poultry, and their products .... $1,000 ..	111,424	102,539	109,317	100,144

Continued on next page.

Table 566.-- FARMS, LAND IN FARMS, AND SELECTED ITEMS: 1987 AND 1982 -- Con.

Item	All farms		Farms with sales of $10,000 or more	
	1987	1982	1987	1982
Farms by value of sales:				
Less than $2,500	1,402	1,454	-	-
$2,500 to $4,999	674	706	-	-
$5,000 to $9,999	745	653	-	-
$10,000 to $24,999	911	788	911	788
$25,000 to $49,999	476	397	476	397
$50,000 to $99,999	287	237	287	237
$100,000 or more	375	353	375	353
Operators by principal occupation:				
Farming	2,816	2,565	1,557	1,352
Other	2,054	2,030	492	423
Operators by days worked off farm:				
Any	2,728	2,534	909	722
200 days or more	1,476	1,371	470	375
Average age of operator .. years ..	53.0	52.7	51.1	51.5
Total farm production expenses .... $1,000 ..	495,759	(NA)	482,975	(NA)
Average per farm ... dollars ..	101,840	(NA)	235,828	(NA)
Selected farm production expenses:				
Livestock and poultry purchased .... $1,000 ..	15,230	17,581	14,646	17,032
Feed for livestock and poultry .... $1,000 ..	42,629	41,548	42,095	40,889
Interest expense ...... $1,000 ..	22,930	17,771	21,407	16,665
Petroleum products .... $1,000 ..	17,197	19,864	16,065	18,759
Livestock and poultry:				
Cattle and calves inventory .... farms ..	1,003	1,040	259	268
number ..	211,045	241,969	193,062	219,651
Beef cows .... farms ..	724	784	198	208
number ..	83,427	90,523	76,126	81,629
Milk cows .... farms ..	73	88	27	38
number ..	11,836	12,767	11,736	12,662
Cattle and calves sold farms ..	807	817	225	241
number ..	101,315	91,675	96,239	86,603

Continued on next page.

Table 566.-- FARMS, LAND IN FARMS, AND SELECTED ITEMS: 1987 AND 1982 -- Con.

Item	All farms		Farms with sales of $10,000 or more	
	1987	1982	1987	1982
Livestock and poultry, con.:				
Hogs and pigs inventory farms ..	372	371	136	132
number ..	47,564	49,029	42,784	42,683
Hogs and pigs sold ..... farms ..	307	319	127	126
number ..	69,019	66,875	64,618	61,919
Sheep and lambs inventory .... farms ..	42	34	11	8
number ..	(D)	(D)	(D)	(D)
Chicken 3 months old or older inventory ...... farms ..	181	201	56	58
number ..	(D)	929,210	(D)	921,810
Broilers and other meat-type chickens sold ... farms ..	12	23	8	15
number ..	2,069,316	3,173,500	2,069,219	3,172,382
Selected crops harvested:				
Sugarcane for sugar .... farms ..	79	188	62	157
acres ..	79,234	89,696	79,140	(D)
tons ..	7,934,181	8,950,242	7,929,989	8,941,044
Pineapples harvested ... farms ..	18	15	12	14
acres ..	22,262	23,141	22,254	(D)
tons ..	683,182	626,860	683,086	(D)
Vegetables harvested for sale .... farms ..	710	746	428	366
acres ..	5,587	4,673	5,165	4,133
Land in orchards .... farms ..	2,128	1,825	796	612
acres ..	33,564	23,178	27,525	18,656
Macadamia nuts .... farms ..	1,036	879	377	307
acres ..	23,233	15,472	20,284	13,960
pounds ..	44,464,884	35,594,548	42,380,242	34,258,992
Nursery and greenhouse crops .... farms ..	1,139	1,050	573	467
sales, $1,000 ..	56,527	35,973	(D)	34,062

(D) Withheld to avoid disclosing data for individual farms.

Source: U.S. Bureau of the Census, 1987 Census of Agriculture, Advance State Report, Hawaii, AC87-A-15-000(A) (May 1989), and Geographic Area Series, Hawaii, State and County Data, AC87-A-11 (August 1989).

Table 567.-- FARMS AND LAND IN FARMS, FOR COUNTIES: 1987

Item	Hawaii	Honolulu	Kauai	Maui
Farms .... number ..	2,810	938	400	722
Land in farms .... acres ..	1,007,287	130,771	224,153	359,310
Average size of farm acres ..	358	139	560	498
Value of land and buildings:				
Average per farm .. dollars ..	573,527	440,397	709,213	873,008
Average per acre .. dollars ..	1,600	3,159	1,266	1,754
Estimated market value of all machinery and equipment:				
Average per farm .. dollars ..	27,187	39,523	70,317	81,608
Farms by size:				
1 to 9 acres	1,602	707	181	365
10 to 49 acres	883	156	139	223
50 to 179 acres	180	31	51	79
180 to 499 acres	71	21	11	25
500 to 999 acres	14	7	5	5
1,000 acres or more	60	16	13	25
Total cropland .... farms ..	2,561	742	294	573
acres ..	137,924	49,887	50,146	89,439
Harvested cropland ..... farms ..	2,390	716	235	496
acres ..	63,098	24,779	21,890	42,952
Irrigated land .... farms ..	644	583	190	410
acres ..	12,899	36,301	32,486	67,198
Market value of agricultural products sold .... $1,000 ..	219,756	168,824	67,847	153,313
Average per farm .. dollars ..	78,205	179,983	169,619	212,345
Crops, including nursery and greenhouse crops ... $1,000 ..	195,140	100,356	62,099	140,722
Livestock, poultry, and their products .... $1,000 ..	24,616	68,468	5,748	12,591

Source: U.S. Bureau of the Census, 1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC87-A-11 (August 1989), pp. 130-132.

Table 568.-- EMPLOYMENT IN AGRICULTURE: 1900 TO 1989

[Data for 1940 and later years include forestry and fisheries]

Year	Number	Percent of total	Year	Number	Percent of total
1900	55,931	62.0	1950	31,806	19.0
1910	54,742	54.1	1960	15,981	7.6
1920	54,803	49.0	1970	13,161	4.6
1930	61,811	40.1	1980	14,560	3.5
1940	54,629	35.5	1989	13,100	2.6

Source: Robert C. Schmitt, Historical Statistics of Hawaii (1977), pp. 122-124; present volume, tables 345, 349, and 354.

Table 569.-- GENERAL EXCISE TAX BASE FOR PRODUCING: 1979 TO 1989

[In thousands of dollars. Data are on a cash basis accounting. "Producing" refers to the raising and production of agricultural products in their natural state, the production of natural resource products, fishing, and aquaculture; see HRS, 1985 Replacement, Section 237-5]

Year 1/	Amount	Year 1/	Amount	Year 1/	Amount
1979	156,873	1983	220,298	1987	274,202
1980	143,694	1984	242,641	1988 2/ ...	298,261
1981	176,582	1985	262,791	1989 2/ ...	326,400
1982	173,891	1986	250,954		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Data exclude tax base for unallocated collections, distributed for earlier years.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 570.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT: 1970 TO 1989

Year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/ Self-employed farm operators	Unpaid family members	Hired workers
1970	4,500	2,300	3,200	1,450	12,450
1971	4,400	2,300	3,050	1,500	11,810
1972	4,300	2,300	3,050	1,550	11,220
1973	4,300	2,300	3,050	1,550	10,770
1974	3,800	2,200	3,040	1,660	10,180
1975	3,900	2,150	3,060	1,720	11,040
1976	4,000	2,100	2,890	1,560	11,240
1977	4,100	2,050	2,840	1,550	11,300
1978	4,300	1,980	2,890	1,810	11,600
1979	4,300	1,980	3,020	1,520	10,800
1980	4,300	1,970	3,400	1,100	10,550
1981	4,400	1,965	3,100	900	10,500
1982	4,500	1,960	2,600	1,300	13,000
1983	4,500	1,900	2,500	1,500	13,000
1984	4,600	1,850	2,200	1,300	11,800
1985	4,600	1,800	2,200	1,200	10,600
1986	4,600	1,750	2,050	1,200	9,700
1987	4,650	1,720	2,600	1,100	10,700
1988	4,650	1,720	2,600	1,100	10,300
1989	4,650	1,720	2,400	1,100	9,800

1/ Based on farm definition of $600 or more of agricultural sales prior to 1974 and $1,000 or more thereafter.

2/ Includes land not in crop and pasture, such as farm house lots, roads, woodlots, etc.

3/ Annual averages through 1980, and varying dates thereafter.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Table 571.-- VALUE OF CROP AND LIVESTOCK SALES: 1970 TO 1989

[$1,000]

Year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unprocessed cane)	Pineapples (fresh equiv.)	Other crops	
1970 1/ ...	213,950	172,302	110,600	39,500	22,202	41,648
1971 1/ ...	221,829	178,776	115,800	40,300	22,676	43,053
1972	232,760	186,518	117,300	43,900	25,318	46,242
1973	266,161	210,892	141,900	39,600	29,392	55,269
1974	575,432	517,523	442,300	40,259	34,964	57,909
1975	377,575	319,304	237,000	41,616	40,688	58,271
1976	327,820	265,498	164,700	52,983	47,815	62,322
1977	325,182	260,164	144,200	62,249	53,715	65,018
1978	380,655	308,098	182,700	63,090	62,308	72,557
1979	441,253	362,789	217,600	69,409	75,780	78,464
1980	634,101	552,877	385,100	76,596	91,181	81,224
1981	489,502	401,348	207,500	89,745	104,103	88,154
1982	507,268	428,860	230,800	94,364	103,696	78,408
1983	568,413	481,925	266,900	100,376	114,649	86,488
1984	550,517	463,502	256,200	89,928	117,374	87,015
1985	528,649	445,826	222,400	90,530	132,896	82,823
1986	564,717	481,312	233,800	99,720	147,792	83,405
1987	557,298	469,565	218,000	99,286	152,279	87,733
1988 1/ ...	573,962	485,293	209,900	107,402	167,991	88,669
1989	577,099	485,330	210,300	95,448	179,582	91,769

1/ Revised from Data Book 1989, table 554.
Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Table 572.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT, BY COUNTIES OR ISLANDS: 1979, 1988, AND 1989

County or island	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self-employed farm operators	Unpaid family members	Hired workers
State total:					
1979	4,300	1,980	3,020	1,520	10,800
1988	4,650	1,720	2,600	1,100	10,300
1989	4,650	1,720	2,400	1,100	9,800
Hawaii County:					
1979	2,500	1,150	1,850	1,000	3,250
1988	2,700	1,010	1,750	725	3,700
1989	2,700	1,010	1,575	725	3,610
Maui County:					
1979	500	425	360	190	3,125
1988	600	360	250	125	2,650
1989	600	360	225	110	2,560
Oahu:					
1979	1,000	125	625	260	2,790
1988	950	125	475	175	2,700
1989	950	125	450	200	2,425
Kauai County:					
1979	300	280	175	75	1,610
1988	400	225	140	60	1,200
1989	400	225	175	60	1,175

1/ Based on farm definition of $1,000 or more of agricultural sales.

2/ Includes land not in crops and pasture, such as farm house lots, roads, woodlots, etc.

3/ Data not comparable among years shown due to changes in survey periods; sum of county estimates may not add due to rounding.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 573.-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTIES OR ISLANDS: 1979, 1988, AND 1989

[$1,000]

County and year	All crops and livestock	Crops				Live-stock
		All crops	Sugar (unpro-cessed cane)	Pine-apples (fresh equiv.)	Other crops	
State total:						
1979	441,253	362,789	217,600	69,409	75,780	78,464
1988 1/ ...	573,962	485,293	209,900	107,402	167,991	88,669
1989	577,099	485,330	210,300	95,448	179,582	91,769
Hawaii County:						
1979	145,146	123,856	79,500	-	44,356	21,290
1988 1/	194,679	165,619	60,000	-	105,619	29,060
1989	203,408	170,713	56,900	-	113,813	32,695
Maui County:						
1979	107,463	95,917	52,200	32,936	10,781	11,546
1988 1/	137,941	128,778	66,200	39,141	23,437	9,163
1989	132,545	124,287	66,400	32,863	25,024	8,258
Oahu:						
1979	132,458	91,206	38,200	36,473	16,533	41,252
1988 1/	176,508	130,823	31,900	68,261	30,662	45,685
1989	176,330	130,274	35,500	62,585	32,189	46,056
Kauai County:						
1979	56,186	51,810	47,700	-	4,110	4,376
1988 1/	64,834	60,073	51,800	(2/)	8,273	4,761
1989	64,816	60,056	51,500	(2/)	8,556	4,760

1/ Revised from *Data Book 1989*, table 556.

2/ Less than $50,000.

Source: Hawaii Agricultural Statistics Service, *Statistics of Hawaiian Agriculture* (annual) and records.

Table 574.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES: 1979, 1988, AND 1989

Subject	1979	1988 1/	1989
Acreage in crop (1,000 acres):			
Sugarcane	218.8	176.5	170.8
Pineapples (land used for pineapple)	44.0	34.6	32.7
Vegetables and melons (harvested acreage)	4.3	5.2	5.0
Fruits, excluding pineapples	5.3	7.6	7.4
Coffee	2.1	2.6	2.3
Macadamia nuts	11.4	21.9	22.3
Miscellaneous crops	4.9	7.4	4.9
Number of crop farms:			
Sugar	400	75	70
Pineapples	15	12	10
Vegetables and melons	535	575	525
Fruits (excluding pineapples)	683	775	709
Coffee	700	635	635
Macadamia nuts	466	660	660
Taro	121	155	150
Flowers and nursery products	580	675	710
Volume of crop marketings:			
Sugar, unprocessed cane (1,000 tons)	9,632	7,606	7,082
Pineapples, fresh equivalent (1,000 tons)	681	659	580
Vegetables and melons (1,000 lb.)	70,240	92,730	81,700
Fruits, excluding pineapples (1,000 lb.)	56,600	104,570	109,980
Coffee, parchment (1,000 lb.)	2,190	2,000	2,200
Macadamia nuts, in shell (1,000 lb.)	26,660	45,500	50,500
Taro (1,000 lb.)	6,640	6,800	6,500
Value of crop sales ($1,000):			
Sugar (unprocessed cane)	217,600	209,900	210,900
Pineapples (fresh equivalent)	69,409	107,402	95,448
Vegetables and melons	18,388	30,917	31,671
Fruits (excluding pineapples)	11,956	20,576	23,074
Coffee (parchment)	3,132	6,600	8,910
Macadamia nuts (in shell)	16,769	40,950	44,945
Taro	1,089	1,904	1,996
Field crops (not estimated separately)	3,557	7,423	6,441
Flowers and nursery products	20,778	59,551	62,295

NA Not available.

1/ Revised from Data Book 1989, table 557.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 575.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES, BY GEOGRAPHIC AREAS: 1989

Subject	Hawaii County	Maui County	Oahu	Kauai County
Acreage in crop (1,000 acres):				
Sugarcane	63.1	42.5	24.3	40.9
Pineapples (land used for pineapple)	-	19.7	13.0	(1/)
Vegetables and melons (harvested acreage)	1.7	2.4	0.8	0.1
Fruits, excluding pineapples	5.8	0.1	0.8	0.7
Coffee	2.3	-	-	-
Macadamia nuts	(D)	(D)	(D)	(D)
Miscellaneous crops	2.5	1.0	0.7	0.7
Number of crop farms:				
Sugar	60	2	3	5
Pineapples	-	5	2	3
Vegetables and melons	280	83	137	25
Fruits (excluding pineapples)	497	35	122	55
Coffee	635	-	-	-
Macadamia nuts	640	9	3	8
Taro	87	16	2	45
Flowers and nursery products	320	110	230	50
Volume of crop marketings:				
Sugar, unprocessed cane (1,000 tons)	2,130	1,925	1,208	1,819
Pineapples, fresh equivalent (1,000 tons)	-	345	235	(2/)
Vegetables and melons (1,000 lb.)	30,470	41,495	9,230	505
Fruits, excluding pineapples (1,000 lb.)	89,190	1,020	6,750	13,020
Coffee, parchment (1,000 lb.)	2,200	-	-	-
Macadamia nuts, in shell (1,000 lb.)	(D)	(D)	(D)	(D)
Taro (1,000 lb.)	1,620	(D)	(D)	4,160
Value of crop sales ($1,000):				
Sugar (unprocessed cane)	56,900	66,400	35,500	51,500
Pineapples (fresh equivalent)	-	32,863	62,585	(3/)
Vegetables and melons	13,671	11,615	6,169	216
Fruits (excluding pineapples)	18,377	326	2,149	2,222
Coffee (parchment)	8,910	-	-	-
Macadamia nuts (in shell)	(D)	(D)	(D)	(D)
Taro	591	(D)	(D)	1,211
Field crops (not estimated separately)	275	2,989	695	2,482
Flowers and nursery products	29,038	7,756	23,123	2,378

D Withheld to avoid disclosure of individual operations.
1/ Less than 500 acres.
2/ Less than 500 tons.
3/ Less than $50,000.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1989.

Table 576.-- VEGETABLES, MELONS, FRUITS, NUTS, COFFEE, AND TARO: 1989

[Data shown for crops with sales in excess of $500,000]

Crop	Acreage harvested 1/	Yield per acre (1,000 lb.)	Production (1,000 lb.)	Farm price (cents per lb.)	Value of sales ($1,000)
Vegetables and melons:					
Snap beans	180	5.6	1,000	83.7	837
Chinese cabbage	430	17.9	7,700	21.4	1,648
Head cabbage	650	24.2	15,750	17.9	2,819
Celery	80	25.0	2,000	26.5	530
Cucumbers	220	15.9	3,500	39.4	1,379
Daikon	240	14.6	3,500	22.6	791
Eggplant	50	23.2	1,160	70.8	821
Ginger root	165	49.4	8,150	71.5	5,827
Lettuce (head, semi-head)	260	12.5	3,300	39.0	1,287
Dry onions	150	8.3	1,250	96.5	1,206
Green peppers	155	8.8	1,370	55.9	766
Tomatoes	250	22.0	5,500	55.4	3,047
Watermelons	670	20.1	13,500	13.2	1,782
Green onions	190	7.4	1,400	97.8	1,369
Watercress	35	35.7	1,250	107.7	1,346
Romaine	140	11.4	1,600	37.6	602
Sweet potatoes	110	11.4	1,250	41.0	513
Mustard cabbage	120	10.5	1,260	40.4	509
Fruits:					
Bananas	1,000	11.9	11,900	36.5	4,344
Guavas	965	21.3	20,600	15.0	3,090
Papayas	2,500	29.6	74,000	19.4	14,380
Macadamia nuts (1989-1990)	18,200	2.8	54,000	89.0	44,945
Coffee (1989-1990)	2,300	1.0	2,200	4.1	8,910
Taro	430	15.1	6,500	30.7	1,996

1/ Acreage bearing for macadamia nuts; acreage in crop for watercress and taro.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1989.

Table 577.-- SUGARCANE ACREAGE, BY TYPE OF IRRIGATION: 1972 TO 1989

Year	Total cane land	Irrigated cane land		Unirrigated cane land
		Drip	Furrow or overhead	
1972	229,611	327	119,704	109,580
1973	226,580	2,544	116,136	107,900
1974	224,227	5,662	112,919	105,646
1975	221,426	12,719	103,998	104,709
1976	221,551	21,250	98,797	101,504
1977	220,729	30,042	91,368	99,319
1978	220,697	39,167	80,207	101,323
1979	218,773	49,202	70,936	98,635
1980	217,718	60,241	58,966	98,511
1981	216,099	69,665	48,493	97,941
1982	204,749	73,551	41,896	89,302
1983	194,258	80,019	33,459	80,780
1984	188,396	86,925	26,325	75,146
1985	187,858	89,129	24,323	74,406
1986	184,179	90,877	19,526	73,776
1987	180,967	88,812	18,602	73,553
1988	177,693	88,387	17,791	71,515
1989	170,816	86,030	16,687	68,099

Source: Hawaiian Sugar Planters' Association, records; Alexander & Baldwin, Inc., "Water to the Roots," Ampersand, Spring 1987, pp. 3-6.

Table 578.-- FRESH FRUIT AND VEGETABLE ARRIVALS IN HONOLULU, BY SOURCE: 1987 TO 1989

[1,000 pounds, net]

Source	1987	1988	1989
Total arrivals	295,701	305,515	303,526
From Hawaii	102,078	101,541	91,881
Oahu 1/	40,160	36,736	33,314
Other islands 2/	61,918	64,805	58,567
Hawaii 2/	29,510	31,257	30,203
Maui 2/	16,229	16,007	15,388
Molokai 2/	14,279	16,548	12,667
Kauai 2/	1,900	993	309
From U.S. Mainland 2/	183,952	195,537	205,915
From foreign countries 2/	9,671	8,437	5,730

1/ Wholesalers' truck receipts.

2/ Ship and plane arrivals.

Source: Hawaii State Department of Agriculture, Market News Service, Honolulu Arrivals, Fresh Fruits and Vegetables, 1988 (June 1989), table 1, as corrected; and records.

Table 579.-- MACADAMIA NUT COMMERCIAL PLANTINGS: 1915 TO 1988

Years	Acres planted	Years	Acres planted	Years	Acres planted
1915-19 ...	1	1945-49 ...	426	1975-79 ...	1,437
1920-24 ...	-	1950-54 ...	1,086	1980-84 ...	5,511
1925-29 ...	129	1955-59 ...	554	1985-88 ...	4,400
1930-34 ...	20	1960-64 ...	1,331	Unknown ...	660
1935-39 ...	89	1965-69 ...	4,493		
1940-44 ...	21	1970-74 ...	1,742	1915-88 ...	21,900

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1988, p. 34.

Table 580.-- LIVESTOCK INVENTORY, 1979, 1988, AND 1989, AND BY GEOGRAPHIC AREAS, 1989

[In thousands]

Year and geographic area	All cattle and calves 1/	Milk cows 1/	Hogs and pigs 2/	Chickens (excluding broilers) 2/	Bee colonies
1979	213	13	53	1,306	7
1988	212	12	43	1,217	9
1989	205	11	39	1,216	9
GEOGRAPHIC AREAS: 1989					
Hawaii County	131.5	2.4	3.4	(D)	(NA)
Maui	29.7	0.9	7.1	(D)	(NA)
Molokai and Lanai	5.0	-	0.7	(D)	(NA)
Oahu	26.7	8.1	23.4	987	(NA)
Kauai County	12.1	0.4	3.6	(D)	(NA)

NA Not available.

D Withheld to avoid disclosing data for individual operations.

1/ As of January 1 of the following year.

2/ As of December 1.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 581.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS, AND VALUE OF LIVESTOCK SALES: 1979, 1988, AND 1989

Subject	1979	1988 1/	1989
Number of livestock operations, Dec. 31:			
Cattle 2/	800	900	900
Hogs	650	600	550
Milk	70	90	80
Eggs	60	55	55
Broilers	10	8	8
Honey	25	12	11
Volume of livestock marketings:			
Beef (dressed weight; 1,000 lb.) 3/	29,325	31,403	34,450
Pork (dressed weight; 1,000 lb.)	7,785	8,217	7,716
Milk (million lb.)	147.3	157.1	151,5
Eggs (million)	229	224.4	226.5
Broilers and chickens (1,000 lb.) 4/	7,136	7,994	7,967
Honey (1,000 lb.)	910	1,611	1,215
Value of livestock sales ($1,000):			
Cattle 5/	28,356	27,984	31,483
Hogs 5/	7,027	8,381	7,911
Milk	24,894	32,190	31,588
Eggs	14,007	13,801	14,949
Broilers and chickens	3,655	5,110	4,793
Other 6/	525	1,203	1,045

1/ Revised from Data Book 1989, table 564.

2/ Includes beef, dairy, and dairy replacement farms.

3/ Includes slaughter cattle, but excludes calves shipped out-of-State.

4/ Ready-to-cook weight.

5/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

6/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 582.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS, AND VALUE OF LIVESTOCK SALES, BY GEOGRAPHIC AREAS: 1989

Subject	Hawaii County	Maui County	Oahu	Kauai County
Number of livestock operations, Dec. 31:				
Cattle 1/	440	210	80	170
Hogs	90	90	270	100
Milk	41	7	20	12
Eggs	25	7	19	4
Broilers	-	-	7	1
Honey	4	4	1	2
Volume of livestock marketings:				
Beef 2/ (dressed weight; 1,000 lb.)	28,882	3,058	1,184	1,326
Pork (dressed weight; 1,000 lb.)	559	1,871	4,344	942
Milk (million lb.)	(D)	(D)	116.3	(D)
Eggs (million)	(D)	(D)	183.8	(D)
Broilers and chickens 3/ (1,000 lb.)	(D)	(D)	(D)	(D)
Honey (1,000 lb.)	(D)	(D)	(D)	(D)
Value of livestock sales ($1,000):				
Cattle 4/	26,711	2,594	981	1,197
Hogs 4/	603	2,021	4,257	1,030
Milk	(D)	(D)	24,481	(D)
Eggs	(D)	(D)	11,871	(D)
Broilers and chickens	(D)	(D)	(D)	(D)
Other 5/	628	170	53	194

D Withheld to avoid disclosure of individual operations.

1/ Includes beef, dairy, and dairy replacement farms.

2/ Includes slaughter cattle, but excludes calves shipped out-of-State.

3/ Ready-to-cook weight.

4/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

5/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1989.

Table 583.-- FLORICULTURE AND NURSERY PRODUCTS, 1987 TO 1989, AND BY ISLANDS, 1989

Island and year	Number of farms	Growing area: Total (acres)	Growing area: Greenhouse (1,000 sq. ft.)	Growing area: Artificial shade structure (1,000 sq. ft.)	Growing area: Natural shade area (acres)	Growing area: Open field (acres)	Wholesale value ($1,000)
State total:							
1987	670	1,840	3,314	27,394	55	1,080	54,731
1988	675	1,833	4,690	23,800	70	1,109	59,551
1989	710	2,214	6,325	23,035	50	1,490	62,295
Islands, 1989:							
Hawaii	320	1,139	2,772	17,720	49	620	29,038
Kauai	50	90	370	280	-	75	2,378
Maui/Molokai .	110	492	195	1,150	1	460	7,756
Oahu	230	493	2,988	3,885	-	335	23,123

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (June 28, 1990), pp. 2 and 11.

Table 584.-- OUT-OF-STATE SALES OF FLORICULTURE AND NURSERY PRODUCTS: 1985 TO 1989

[$1,000. Based on F.O.B. island value. Includes both wholesale and retail sales]

Type	1985	1986	1987	1988	1989
Total sales ...	24,284	28,136	31,904	33,042	37,475
Anthuriums, cut	7,581	8,653	9,170	8,816	9,280
Foliage, potted	9,550	9,782	8,935	8,609	8,130
Other flowers, nursery products .	7,153	9,701	13,799	15,617	20,065

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers and Nursery Products, Annual Summary (July 28, 1990), p. 13.

Table 585.-- FLORICULTURE AND NURSERY PRODUCTS, BY COMMODITY: 1989

[Shown for commodities with value of sales over $750,000]

Commodity	Number of farms	Number sold		Value of sales ($1,000)
		Unit	Number	
Selected cut flowers:				
Anthuriums	155	1,000 dozens	1,385	7,811
Heliconias	120	1,000 dozens	185	1,130
Proteas	36	1,000 stems	1,690	1,184
Roses, Tea	15	1,000 dozens	635	2,444
Orchids:				
Sprays: Dendrobium	83	1,000 dozens	435	2,798
Potted: Dendrobiums	80	1,000 pots	455	2,160
Lei flowers:				
Carnations	22	Million blooms	24.6	1,134
Tuberose	8	Million blooms	36.6	1,029
Vanda, Miss Joaquim	23	Million blooms	34.7	836
Ornamentals and trees	58	...	(NA)	3,370
Plant rentals	46	...	(NA)	2,820
Foliage:				
Potted, primarily for--				
Indoor or patio use	79	...	(NA)	14,575
Landscape use	51	...	(NA)	1,709
Unfinished stock (for further growing on)	21	...	(NA)	1,102
Potted flowering plants:				
Chrysanthemums	8	1,000 pots	228	884
Poinsettias	38		265	1,045

NA Not available.

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (June 28, 1990).

Table 586.-- MARKET SUPPLY OF SPECIFIED FOODS: 1979, 1988, AND 1989

Commodity and year	Total market supply 1/			Per capita market supply 2/	Percent from Hawaii
	Total	Inshipment	Hawaii		
Fresh market fruits:					
1979	76,004	58,295	17,709	73.1	23.3
1988 3/...............	172,227	90,777	81,450	141.6	47.3
1989	168,116	92,896	75,220	131.1	44.7
Fresh market vegetables:					
1979	113,258	105,155	69,080	167.6	39.6
1988	221,586	149,251	72,335	181.8	32.6
1989	225,603	159,003	66,600	178.6	29.5
Beef and veal: 4/					
1979	90,525	61,200	29,325	87.1	32.4
1988	110,589	79,186	31,403	90.7	28.4
1989	113,653	79,203	34,450	90.0	30.3
Pork: 4/					
1979	32,642	24,857	7,785	31.4	23.8
1988	40,713	32,496	8,217	33.4	20.2
1989	42,491	34,775	7,716	33.6	18.2
Chickens:					
1979	31,054	23,918	7,136	29.9	23.0
1988	43,739	35,745	7,994	35.9	18.2
1989	46,743	38,776	7,967	37.0	17.0
Eggs:					
1979	21,056	1,956	19,100	20.3	90.7
1988	20,791	2,091	18,700	17.1	89.9
1989	20,601	1,726	18,875	16.3	91.6

1/ Eggs in 1,000 dozens; other foods in 1,000 pounds.

2/ Eggs in dozens; other foods in pounds. Based on de facto population estimates in table 3.

3/ Revised from Data Book 1989, table 569.

4/ Carcass weight equivalent.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 587.-- LAND EVALUATION RATING, FOR SIX MAJOR ISLANDS: 1985

[Thousand acres. The Land Evaluation and Site Assessment Commission land evaluation rating is a composite index, scaled from 0 to 100, based on measurements of soil productivity and the suitableness of land for agricultural purposes. Data exclude Kahoolawe, Niihau, Lehua, Kaula, and the Northwestern Hawaiian Islands]

Land evaluation rating	Six-island total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Total area	4,042	2,579	466	90	166	386	355
90 to 100	66	-	17	3	7	39	-
80 to 89	137	17	39	11	16	33	20
70 to 79	189	95	20	2	6	27	40
60 to 69	212	125	36	(Z)	9	22	20
50 to 59	221	113	64	3	10	12	18
40 to 49	309	227	40	6	10	18	7
30 to 39	605	543	29	1	3	11	17
20 to 29	492	282	55	48	50	30	26
10 to 19	1,813	1,176	165	15	55	194	206
Under 10	-	-	-	-	-	-	-
Mean rating ...	32.8	29.8	40.8	36.7	37.6	40.1	32.9

Z Less than 500 acres.

Source: Land Evaluation and Site Assessment Commission, A Report on the State of Hawaii Land Evaluation and Site Assessment System (February 1986), Exhibit A.

Table 588.-- AGRICULTURAL CHEMICALS USED, INCLUDING FERTILIZER AND LIME: 1978 TO 1987

Chemicals used	1978	1982	1987
Any chemicals, fertilizer, or lime used .... farms	3,568	3,532	4,105
Commercial fertilizer .... farms	3,172	3,158	3,524
acres on which used	284,452	228,982	225,457
$1,000	26,530	33,477	30,717
Lime .... farms	525	525	825
acres on which used	12,488	9,547	21,544
tons	12,011	10,423	23,220
Agricultural chemicals 1/ .... farms	3,277	3,084	3,881
$1,000	13,700	16,417	18,233
Sprays, dusts, granules, fumigants, etc., to control --			
Insects on hay and other crops .... farms	1,204	1,702	2,008
acres on which used	28,787	45,671	68,150
Nematodes in crops .... farms	441	654	663
acres on which used	9,806	9,638	15,792
Diseases in crops and orchards .... farms	912	1,067	1,151
acres on which used	12,310	18,085	(D)
Weeds, grass, or brush in crops and pasture farms	2,325	2,385	2,887
acres on which used	269,801	213,551	235,871
Chemicals used for defoliation or for growth control of crops or thinning of fruit .... farms	160	165	212
acres on which used	57,280	50,455	57,481

D Withheld to avoid disclosing data for individual farms.

1/ Data after 1978 exclude the cost of lime.

Source: U.S. Bureau of the Census, 1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC87-A-11 (August 1989), table 15, p. 19.

Table 589.-- AQUACULTURE INDUSTRY OPERATIONS: 1970 TO 1989

Year	Number of operations, Dec. 31		Acreage, Dec. 31	Production (1,000 lb.)	Value ($1,000)
	Total	Prawn producers			
1970	2	1	193	20	11
1971	2	1	193	17	17
1972	2	1	193	18	23
1973	3	2	203	34	34
1974	4	3	213	41	136
1975	10	3	234	82	178
1976	14	6	235	94	210
1977	25	13	246	123	281
1978	25	16	320	178	525
1979	23	19	493	246	1,531
1980	37	24	575	320	1,655
1981	41	21	547	338	1,868
1982	44	22	643	551	2,625
1983	42	21	496	345	1,605
1984	47	17	474	441	2,300
1985	48	20	465	583	2,780
1986	44	20	444	1,015	3,549
1987	45	14	437	1,689	6,263
1988	44	12	477	1,170	5,560
1989	46	10	479	1,264	6,835

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, records, May 25, 1989 and September 19, 1990.

Table 590.-- AQUACULTURE OPERATIONS, ACREAGE, PRODUCTION, AND VALUE, BY COUNTIES: 1989

Subject	State total	Hawaii	Maui	Honolulu	Kauai
Number of operations ...	46	19	4	19	4
Prawn producers	10	1	-	9	-
Acreage (Dec. 31)	479	63	13	403	4
Production (1,000 lb.)..	1,263.5	272.8	7.5	983.2	(NA)
Shellfish	706.4	(NA)	7.2	699.2	(NA)
Finfish	175.9	49.9	.3	125.7	(NA)
Algae	381.2	222.9	(NA)	158.3	(NA)
Other 1/	...	...	(NA)	...	(NA)
Value ($1,000)	6,834.6	1,967.0	42.9	4,824.7	(NA)
Shellfish	3,781.9	(NA)	42.0	3,739.9	(NA)
Finfish	552.9	161.3	.9	390.7	(NA)
Algae	1,987.1	1,555.2	(NA)	431.9	(NA)
Other 1/	512.7	250.5	(NA)	262.2	(NA)

NA Not available.

1/ Items not sold by weight: postlarvae, brine shrimp, koi, tropical fish, and aquarium plants.

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, September 19, 1990.

Section 20

FORESTS, FISHERIES, AND MINING

This section presents data on forests and forest products, commercial fishing, and mining and mineral products.

The most recent available statistics show 1.2 million acres of forest and water reserve and 700,000 acres of timberland in the State, most of it on the Big Island. Over 45,000 acres had been planted in eucalyptus and other species of trees by mid-1989. Recent surveys of vegetation on three islands show ohia lehua to be the most common type of tree on Oahu and Kauai (with acreages of 38,000 and 109,000, respectively) and kiawe the leading type (at 33,000 acres) on Molokai. Forest and brushland fires burned 10 square miles in fiscal 1989.

The commercial fish catch in fiscal year 1989 amounted to 13.5 million pounds, with a value of $28 million to primary producers. Ahi (yellowfin) and aku (skipjack) accounted for 35 percent of the total value. Other important species are spiny lobster, opakapaka, mahimahi, and ono. Commercial fishermen numbered 3,491. Among Marine Life Conservation Districts, those with the most fish per acre were Honolua-Mokuleia Bays (8,253), Molokini Shoal (2,711), and Hanauma Bay (2,532 offshore).

The value of mineral production reached $93 million in 1989, almost all of it in cement ($41 million) and crushed stone ($48 million). The 1989 total was an all-time high.

Important sources of data on these subjects are the United States Census of Mineral Industries and reports and records of the U.S. Bureau of Mines and Hawaii State Department of Land and Natural Resources, Aquatic Resources Division and Forestry and Wildlife Division. Historical Statistics of Hawaii, Section 14, summarizes the data for earlier periods. Comparable Mainland statistics are reported in the Statistical Abstract of the United States: 1990, Sections 24 and 25.

Table 591.-- FOREST ACREAGE, BY ISLANDS: 1989

Island	Conservation district forest land, June 30, 1989		Planted forest, June 30, 1989	
	Forest reserve land 1/	Private forest land 2/	Planted in preceding year	Total standing
State total	840,540	327,845	108	45,498
Hawaii	585,000	106,745	62	16,851
Maui	93,320	53,180	7	11,689
Kahoolawe	-	-	-	-
Lanai	-	6,150	-	512
Molokai	44,290	-	12	3,217
Oahu	29,810	87,920	-	7,039
Kauai	88,120	73,850	27	6,190
Niihau	-	-	-	-

1/ State owned and privately owned lands under surrender agreement in forest reserve system.

2/ Private forest land within conservation district. The majority of these lands were previously in the forest reserve system.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 592.-- WOODLAND ON FARMS, 1978 TO 1987, AND BY COUNTIES, 1987

[Acres]

Use	1978	1982	1987				
			State total	Hawaii	Maui	Honolulu	Kauai
Total	145,802	117,270	99,135	75,331	14,024	7,085	2,695
Pastured	40,242	36,550	27,517	22,973	992	2,797	755
Not pastured ..	105,560	80,720	71,618	52,358	13,032	4,288	1,940

Source: U.S. Bureau of the Census, 1987 Census of Agriculture, Hawaii AC87-A-11 (August 1989), pp. 15 and 36.

Table 593.-- LAND AREA, BY VEGETATION TYPE AND FOREST RESERVE STATUS, FOR MOLOKAI, OAHU, AND KAUAI: 1986

[In acres. Excludes land in forest plantations]

Vegetation type	Molokai		Oahu		Kauai	
	Total	Forest reserve	Total	Forest reserve	Total	Forest reserve
Total, all types	163,214	44,288	370,002	34,931	347,088	88,127
Tree type:						
Ohia lehua	32,833	30,161	37,563	9,524	109,040	50,702
Koa	-	-	28,548	6,601	13,438	6,223
Kukui	4,773	4,009	2,775	617	7,634	2,029
Kiawe	33,215	-	17,354	241	10,358	116
Eucalyptus	1,527	954	1,131	411	3,157	1,288
Guava	5,918	4,200	10,287	1,421	12,143	3,099
Other trees	2,673	573	36,700	6,776	32,763	6,043
Shrub type	16,417	1,527	33,974	2,965	36,061	7,189
Forb type	191	-	11,338	2,718	4,120	2,043
Grassland	38,751	764	45,102	3,261	34,168	5,198
Cultivated land	18,325	-	55,770	-	64,741	387
No vegetation	3,819	-	822	-	6,709	3,810
Urban and other	4,772	2,100	88,638	396	12,756	-

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, multi-resource inventory reports.

Table 594.-- FOREST LAND, TIMBERLAND AREA, VOLUME OF SAWTIMBER, AND GROWING STOCK: JANUARY 1, 1987

Subject	1,000 acres	Subject	Amount
Total forest land	1,748	Sawtimber, net volume:	
		Total (mil. bd. ft.)	1,196
Timberland	700	Softwood (mil. bd. ft.)	18
Federal	-		
State or county	338	Growing stock, net volume:	
Private	362	Total (mil. cu. ft.)	280
		Softwood (mil. cu. ft.)	4

Source: U.S. Forest Service, cited in *Statistical Abstract of the United States: 1990*, p. 672.

Table 595.-- FOREST AND BRUSHLAND FIRES, 1987 TO 1989, AND BY COUNTIES, 1989

[Years ended June 30]

Subject	1987	1988	1989, by counties				
			State total	Hawaii	Maui	Honolulu	Kauai
Number of fires	109	79	82	25	28	22	7
Acres burned	6,713	34,794	6,585	5,167	1,259	12	147

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 596.-- COMMERCIAL FISHING: 1970 TO 1989

[Years ended June 30]

Year	Number of commercial fishermen	Commercial fish catch 1/		
		Pounds landed	Pounds sold	Value to primary producers (dollars)
1970	1,264	9,786,726	9,588,319	3,585,166
1971	1,373	15,176,525	14,945,539	4,633,875
1972	1,544	15,577,669	15,246,519	5,536,521
1973	1,677	14,029,491	13,719,284	5,676,783
1974	2,085	13,997,774	13,660,574	6,234,924
1975	1,991	10,801,441	10,404,019	6,242,614
1976	2,283	11,893,141	11,332,659	7,508,395
1977	2,368	15,298,515	14,763,816	9,433,781
1978	2,574	13,672,061	13,139,142	11,115,964
1979	2,447	12,310,524	11,890,241	12,673,328
1980	2,525	10,418,964	9,946,065	10,497,456
1981	2,577	10,890,468	10,465,731	11,828,575
1982	2,525	9,178,789	8,824,348	10,754,276
1983	2,480	7,841,959	7,529,178	10,506,860
1984	2,940	9,819,800	9,344,200	13,556,184
1985	2,638	9,436,591	9,077,357	15,901,656
1986	2,880	9,503,193	9,081,881	18,557,533
1987	3,008	12,128,527	11,628,387	20,477,699
1988	3,155	11,052,502	10,592,287	20,541,580
1989	3,491	13,493,866	13,010,973	28,003,055

1/ Represents the total catches of all licensed commercial fishers. Includes both sea and pond catches, but excludes coral harvests. Particularly for 1979-1988, data may be incomplete due to unreported aku (skipjack tuna) and longline boat catches.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings for Fiscal Year (annual), as revised, and records.

Table 597.-- COMMERCIAL FISH CATCH, BY SPECIES: 1989

[Year ended June 30, 1989]

Species 1/	Pounds caught	Pounds sold	Value (dollars)
Total catch	13,493,866	13,010,973	28,003,055
Sea catch, all species 2/	13,467,823	12,984,966	27,944,835
Aku (Skipjack)	3,581,882	3,506,479	4,329,545
Ahi (Yellowfin tuna)	2,791,176	2,721,863	5,600,378
Ahi (Bigeye tuna)	959,945	948,738	3,157,612
Blue marlin	957,745	882,046	768,578
Striped marlin	578,523	568,125	606,695
Mahimahi	420,041	396,439	1,106,147
Akule	417,369	383,567	696,302
Ono	414,586	394,076	1,062,859
Opakapaka	382,325	371,679	1,341,065
Ula (spiny lobster)	354,572	334,709	3,496,221
Opelu	354,297	346,305	530,151
Uku	319,601	312,122	866,157
Ahipalaha	209,226	208,490	276,237
Swordfish	181,630	181,220	528,149
Ulaula	159,994	155,950	731,847
Shortbill spearfish	129,653	123,578	148,302
Ulua/papio	128,193	119,378	190,480
Ula papapa (slipper lobster)	62,746	55,945	514,745
Laevigatus (shrimp)	57,210	57,210	271,748
Pond landings, all species	26,043	26,007	58,220

1/ Shown separately for all species over 100,000 lb. or $200,000.

2/ Including species not shown separately.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings--Fiscal Year 1988-89.

Table 598.-- COMMERCIAL SEA LANDINGS, BY ISLANDS: 1989

[Year ended June 30, 1989]

Island	Pounds landed	Pounds sold	Value (dollars)
State total	13,467,823	12,984,966	27,944,835
Hawaii	3,175,529	3,080,678	5,484,922
Maui	618,844	530,980	1,207,083
Lanai	17,109	14,333	24,341
Molokai	62,047	51,307	132,279
Oahu	8,680,792	8,507,115	19,327,220
Kauai and Niihau	913,502	800,553	1,768,990

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings--Fiscal Year 1988-89.

Table 599.-- COMMERCIAL SEA LANDINGS, BY FISHING METHOD: 1989

[Year ended June 30, 1989]

Fishing method	Pounds landed	Pounds sold	Value (dollars)
All methods	13,467,823	12,984,966	27,944,835
Aku pole and line	3,289,052	3,288,886	3,995,302
Longline	2,861,043	2,845,120	6,548,540
Handline	3,451,807	3,348,894	7,684,718
Trolling	2,491,291	2,210,734	3,972,215
All other methods	1,374,630	1,291,332	5,744,060

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings--Fiscal Year 1988-89.

Table 600.-- FISH POPULATIONS AROUND SELECTED SHORELINE AREAS: YEAR ENDED JUNE 30, 1989

Location	Species	Fish per acre	Pounds per acre
Marine Life Conservation Districts:			
Hanauma Bay, Oahu: Offshore	79	2,532	796
Molokini Shoal, Maui	112	2,711	851
Honolua-Mokuleia Bays, Maui	74	8,253	3,538
Manele-Hulopoe Bays, Lanai	97	2,488	668
Wailea Bay, Hawaii	82	1,715	445
Lapakahi, Hawaii	98	2,231	248
Kealakekua Bay, Hawaii	95	1,717	200
Waikiki, Oahu	(NA)	1,073	191
Artificial reefs:			
Maunalua Bay, Oahu: Tire modules .	(NA)	7,484	1,891
Keawakapu, Maui	(NA)	(NA)	31
Fisheries Management Areas:			
Waikiki-Diamond Head, Oahu	(NA)	1,045	534
Puako Reef, Hawaii (near shore) ...	40	1,739	156
Other areas:			
Barbers Point, Oahu................	97	1,090	161
Makapuu, Oahu	(NA)	1,230	137
"Pine Trees" Hawaii................	18	2,641	40
Poipu, Kauai	78	5,065	687
Salt Ponds, Kauai	83	2,516	344

NA Not available.
Source follows next table.

Table 601.--MOST ABUNDANT AND HEAVIEST FISH SPECIES AT SPECIFIED LOCATIONS: YEAR ENDED JUNE 30, 1989

[Three leading species at each location, based on both individuals per acre and pounds per acre]

Location and species	Individuals per acre		Pounds per acre	
	Rank	Number	Rank	Number
Waikiki-Diamond Head Shoreline Fisheries Management Area (closed to fishing period):				
Acanthurus triostegus (manini)	1	543	2	68
Thalassoma duperrey (hinalea lauwili)	2	520	3	40
Acanthurus nigrofuscus (lavender tang)	3	463	1	93
Hanauma Bay Marine Life Conservation District (offshore):				
Abudefduf abdominalis (mamo)	1	726	2	126
Rhinecanthus rectangulus (black-wedge humu)	2	261	1	264
Chaetodan miliaris (milletseed butterfly)	3	156	4	57
Mulloides vanicolensis (red weke)	6	131	3	99
Kealakekua Bay Marine Life Conservation District:				
Zebrasome flavescens (pala or yellow tang)	1	337	2	35
Ctenochaetus strigosus (kole)	2	272	6	9
Chromis leucurus (dark damsel)	3	150	(NA)	(NA)
Melichthys niger (ele'ele)	4	113	1	44
Scarus sordidus (uhu)	(NA)	(NA)	3	25

NA Not available.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Statewide Marine Research and Surveys, Survey of Fish and Habitat, July 1, 1988 to June 30, 1989.

Table 602.-- MINERAL INDUSTRIES: 1958 TO 1987

[Excluding mines at manufactures]

Subject	1958	1963	1967	1972	1977	1982	1987
Number of establishments 1/......	20	44	12	15	7	12	9
With 20 employees or more	8	4	3	5	2	4	4
All employees:							
Number (1,000)	.4	.3	.2	.3	.1	.2	.2
Payroll (million dollars)	1.7	1.7	1.6	2.4	1.9	3.8	7.4
Production, development, and exploration workers:							
Number (1,000)	.4	.2	.2	.2	.1	.1	.2
Hours (millions)	.7	.6	.4	.4	.2	.2	.4
Wages (million dollars)	1.4	1.5	1.3	1.8	1.5	2.6	5.7
Value added in mining (million dollars)	4.6	4.9	5.0	9.0	8.1	9.7	23.5
Cost of supplies used, purchased machinery installed, etc. (million dollars)	2.0	2.1	2.3	4.1	2.9	5.9	10.4
Value of shipments and receipts (million dollars)	5.8	6.5	5.5	11.0	9.7	12.8	31.1
Capital expenditures (million dollars)	.7	.5	1.8	2.0	1.3	2.7	2.8

1/ After 1963, data for single-unit establishments without paid employees were excluded from the census of mineral industries. Eight of the 12 establishments reported, including all 4 with 20 employees or more, were in SIC 142, crushed and broken stone, including riprap.

Source: U.S. Bureau of the Census, 1982 Census of Mineral Industries, Geographic Area Series, Pacific States, MIC82-A-9 (April 1985), tables 1 and 2a, and 1987 Census of Mineral Industries, United States, MIC87-SUM-1(P) (September 1989), table 2.

Table 603.-- NONFUEL MINERAL PRODUCTION: 1987 TO 1989

[Production as measured by mine shipments, sales, or marketable production, including consumption by producers]

Minerals	1987	1988 1/	1989 2/
QUANTITY (1,000 SHORT TONS)			
Total	(X)	(X)	(X)
Cement:			
Masonry	10	10	10
Portland	324	354	500
Gem stones	(NA)	(NA)	(NA)
Lime	3	(W)	(Z)
Pumice	(W)	(W)	11,275
Sand and gravel (construction)	*700	652	600
Stone (crushed)	5,732	*5,700	6,100
VALUE ($1,000)			
Total	73,479	74,932	92,596
Cement:			
Masonry	1,559	1,531	600
Portland	26,550	28,880	40,750
Gem stones	25	(W)	125
Lime	(W)	(W)	(Z)
Pumice	(W)	(W)	21
Sand and gravel (construction)	*3,500	3,173	3,200
Stone (crushed)	41,548	*41,000	47,900
Other industrial minerals 3/	297	348	-

* Estimated.

NA Not available.

W Withheld to avoid disclosing company proprietary data; value included with "other industrial minerals."

X Not applicable.

Z Less than half the unit shown.

1/ Revised from Data Book 1989, table 585.

2/ Preliminary.

3/ Including values indicated by symbol W.

Source: U.S. Bureau of Mines, "The Mineral Industry of Hawaii in 1989," Mineral Industry Surveys (1990).

Section 21

CONSTRUCTION AND HOUSING

This section presents statistics on construction activity and costs, the size and composition of the housing inventory, occupancy of housing units and office buildings, home sales, and residential financing. Related series are included in Sections 6 (land use) and 14 (prices).

There were 23,000 building permits issued in 1989, with an estimated value of $2.0 billion. The total included $911 million for new private residential construction, $87 million for hotels, and $475 million for private nonresidential structures. The value of government construction contracts awarded was $758 million. Construction put in place, as indicated by the contracting tax base, totaled $3.1 billion in 1989. The value of land transfers in fiscal 1990 was $16.2 billion, 19 percent of the assessed value of all privately-owned real property in the State. The July 1990 construction cost index for Honolulu (1982=100) was 146 for single-family residences and 144 for high-rise buildings.

The number of housing units in the State increased from 334,000 in 1980 to 403,000 in 1990. Owner occupied units numbered 137,000 in 1980 and 168,000 in 1990; the latter total included 29,000 on leased land. Condominium units, first authorized in 1961, numbered 98,000 by 1987. Cooperative units, first built in 1956, totaled 2,800 in 1987. Government-owned housing, mostly military and public, accounted for 27,000 units as of 1990. Housing has been in short supply throughout most of the past decade: on Oahu, the vacancy rate in the spring of 1989, according to the Federal Home Loan Bank, was only 1.5 percent. The median selling price of single-family homes on Oahu during 1989, based on Multiple Listing Service data, was $270,000; for condominium units it was $135,000. The median gross monthly rent for Oahu rose from $141 in 1970 to $413 in 1983, and the median value of owner occupied single-family units increased from $38,400 to $163,400.

The principal sources for these data are the 1980 U.S. Census of Housing, the 1983 American Housing Survey, postal vacancy surveys sponsored by the Federal Home Loan Bank of Seattle, various series compiled by State and County agencies (primarily the Hawaii Housing Authority, Hawaii State Department of Business, Economic Development & Tourism, Department of Commerce and Consumer Affairs, Department of Taxation, and Bureau of Conveyances, and the four county building departments), the construction cost indexes prepared by the First Hawaiian Bank, and the Honolulu Board of Realtors reports on Multiple Listing Service activity. Many of these series are summarized in reports published by the Bank of Hawaii (particularly Construction in Hawaii, issued annually) and the First Hawaiian Bank. Persons interested in figures for earlier periods should consult Historical Statistics of Hawaii, Section 15. Mainland statistics appear in Section 26 of Statistical Abstract of the United States: 1990.

Table 604.-- NUMBER AND VALUE OF BUILDING PERMITS, BY COUNTIES: 1979 TO 1989

Year	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
NUMBER ISSUED					
1979	26,515	18,297	4,062	1,540	2,616
1980	22,771	15,729	3,732	1,210	2,040
1981	21,395	15,141	3,427	1,276	1,551
1982	16,974	11,743	2,581	1,214	1,436
1983	19,733	13,018	2,649	2,165	1,901
1984	20,582	14,404	2,834	1,437	1,907
1985	23,332	16,011	2,933	1,544	2,844
1986	21,461	14,237	2,717	1,486	3,021
1987	23,929	16,197	3,175	1,595	2,962
1988	24,032	14,956	3,597	1,904	3,575
1989	23,320	15,284	3,560	2,129	2,347
ESTIMATED VALUE ($1,000)					
1979	984,559	566,991	144,768	118,453	154,347
1980	1,278,911	745,565	146,395	133,261	253,690
1981	898,428	550,254	136,617	67,844	143,713
1982	714,938	493,139	75,715	55,380	90,704
1983	767,305	410,763	95,979	142,859	117,704
1984	710,661	473,943	102,805	74,076	59,837
1985	990,879	619,689	132,735	59,522	178,933
1986	1,161,489	674,057	231,997	101,315	154,120
1987	1,268,927	836,328	146,035	109,574	176,990
1988	1,788,983	926,901	181,929	220,245	459,909
1989	1,996,299	1,205,519	362,220	190,907	237,653

Source: City and County of Honolulu Department of Buildings, Summary of Building Permits (annual); Hawaii, Kauai, and Maui County departments of public works, records; F.W. Dodge Division, McGraw-Hill Information Systems Co., records.

Table 605.-- VALUE OF BUILDING PERMITS, BY TYPE, BY COUNTIES: 1989

[Thousands of dollars. Limited to private construction, including additions, alteration, and repairs]

Category	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Total 1/	1,882,397	1,047,747	338,059	178,688	317,903
Residential 1/	910,674	402,591	208,969	103,746	195,368
Hotel	87,174	-	39,528	-	47,646
Non-residential	474,654	350,183	58,446	23,739	42,285
Additions and alterations	409,895	294,973	31,116	51,203	32,604

1/ Includes 538 residential units ($53.9 million) in West Loch which were classified in the report as public projects.

Source: Calculated by Hawaii State Department of Business and Economic Development from county "Monthly Cooperative Report of Local Construction" submitted to F.W. Dodge Division, McGraw-Hill Information Systems Company.

Table 606.-- GENERAL EXCISE TAX BASE FOR CONTRACTING: 1979 TO 1989

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Amount	Year 1/	Amount	Year 1/	Amount
1979 ...	1,325,460	1983 ...	1,353,405	1987 2/ ...	2,003,056
1980 ...	1,569,658	1984 ...	1,242,929	1988 2/ ...	2,487,571
1981 ...	1,613,764	1985 ...	1,367,733	1989 2/ ...	3,112,846
1982 ...	1,294,871	1986 ...	1,808,024		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to income received in the 12-month period ended November 30.

2/ Data exclude tax base for unallocated collections, distributed for earlier years.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 607.-- GOVERNMENT CONSTRUCTION CONTRACTS AWARDED, BY AWARDING AGENCY AND LOCATION OF CONSTRUCTION: 1985 TO 1989

[In thousands of dollars. By date of publication]

Awarding agency and location	1985	1986	1987	1988	1989
Total	248,500	425,145	372,165	650,225	758,332
Awarding agency:					
Federal agencies	74,841	101,943	107,874	170,506	192,358
State agencies	93,785	205,443	174,207	351,705	417,152
City and County of Honolulu	47,784	90,413	79,090	120,285	146,609
Other counties	32,090	27,346	10,994	7,729	2,213
Location of construction:					
City and County of Honolulu	177,650	313,444	293,358	493,865	649,922
County of Hawaii	17,872	61,041	32,261	41,057	26,862
County of Kauai	15,264	33,765	21,080	20,696	30,891
County of Maui	37,713	16,895	25,466	94,607	50,657

Source: Compiled by Hawaii State Department of Business and Economic Development from Trade Publishing Company, BID Service Weekly.

Table 608.-- SUMMARY STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS: 1972 TO 1987

[Excludes establishments without payroll]

Subject	1972	1977	1982	1987
Number of establishments in business during year	1,570	1,732	1,861	1,891
Proprietors and working partners	590	530	396	456
All employees	25,012	20,792	18,665	21,706
Construction workers, average.......	20,163	15,784	13,953	16,582
Other employees, March	4,949	5,032	4,711	4,861
Payroll ($1,000,000)	282.6	323.4	409.7	606.9
Value of business done ($1,000,000) ..	1,085.5	1,435.2	1,853.3	2,963.1
Value added ($1,000,000)	477.5	636.2	855.2	1,288.7

Source: U.S. Bureau of the Census, 1987 Census of Construction Industries, Pacific States, CC87-A-9 (July 1990), Hawaii table 4.

Table 609.-- SUMMARY STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS, BY INDUSTRY: 1982 AND 1987

[Includes establishments both with and without payroll]

1987 SIC code	Industry	Number	Proprietors and working partners	All employees (average)	Value of business done ($1,000)
	1987				
	Construction industries and subdividers and developers	5,796	4,310	21,706	3,233,759
15-17	Construction industries	5,605	4,147	21,385	3,104,309
15	Building construction--General contractors and operative builders	1,346	828	(D)	(D)
16	Heavy construction other than building construction--contractors	136	44	2,745	402,471
17	Special trade contractors	4,123	3,275	(D)	(D)
6552	Land subdividers and developers, n.e.c. 1/	183	161	309	129,444
	1982				
	Construction industries and subdividers and developers	4,259	2,799	18,665	2,032,087
15-17	Construction industries	4,092	2,645	18,340	1,894,673
15	Building construction--General contractors and operative builders	1,020	564	6,290	944,585
16	Heavy construction other than building construction--contractors	133	67	1,768	179,221
17	Special trade contractors	2,939	2,014	10,282	770,867
6552	Land subdividers and developers, n.e.c. 1/	162	154	323	137,412

D Withheld to avoid disclosing data for individual companies.

1/ For establishments without payroll, may also include data for an unknown number of cemetery subdividers and developers.

Source: U.S. Bureau of the Census, 1987 Census of Construction Industries, Pacific States, CC87-A-9 (July 1990), Hawaii table 1.

Table 610.-- GENERAL STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS, BY GEOGRAPHIC AREA: 1987

[Excludes establishments without payroll]

Subject	State total	Oahu	Other islands
Number of establishments in business during year	1,891	1,284	607
All employees, average	21,706	17,851	3,855
Payroll, all employees (mil. dol.)	606.9	525.2	81.7
Value of construction work (mil. dol.)	2,849.8	2,441.6	408.2
Net value of construction work (mil. dol.)	1,958.3	1,647.9	310.4
Value added (mil. dol.)	1,288.7	1,082.9	205.9
Cost of materials, components, supplies, and fuels (mil. dol.)	759.0	635.3	123.7
Cost of construction work subcontracted to others (mil. dol.)	891.5	793.7	97.8
Capital expend. other than land (mil. dol.)	44.6	36.1	8.4

Source: U.S. Bureau of the Census, 1987 Census of Construction Industries, Pacific States, CC87-A-9 (July 1990), Hawaii tables 3 and 12.

Table 611.-- ESTIMATED VALUE PER HOUSING UNIT, BY TYPE OF STRUCTURE, FOR BUILDING PERMITS ISSUED BY THE CITY AND COUNTY OF HONOLULU: 1984 TO 1989

[In dollars. Excludes building permits for additions, alterations and repair]

Type of structure	1984	1985	1986	1987	1988	1989
One-family	70,230	67,783	80,119	80,719	101,649	109,519
Two-family	53,230	58,337	59,184	64,490	69,465	84,415
Multi-family	37,892	46,089	47,789	42,507	81,169	100,462

Source: City and County of Honolulu Department of Building, "Summary of Building Permits" (annual tabular release).

Table 612.-- PRIVATE RESIDENTIAL CONSTRUCTION AND DEMOLITION AUTHORIZED BY PERMITS, BY COUNTIES: 1985 TO 1989

Category and year authorized	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
New 1-family dwellings:						
1985	4,663	2,313	2,350	979	387	984
1986	4,985	2,024	2,961	1,127	417	1,417
1987	5,813	2,684	3,129	1,391	543	1,195
1988	6,067	2,001	4,066	1,715	692	1,659
1989	6,846	2,026	4,820	2,782	856	1,182
New duplex units:						
1985	208	112	96	64	-	32
1986	166	112	54	18	2	34
1987	182	124	58	50	6	2
1988	205	172	33	28	5	-
1989	219	124	95	63	12	20
New apartments:						
1985	2,388	1,744	644	129	84	431
1986	2,570	2,076	494	22	-	472
1987	1,671	785	886	314	-	572
1988	2,802	1,377	1,425	446	21	958
1989	2,618	1,852	766	59	5	702
Units demolished:						
1985 1/	555	455	100	38	12	50
1986 2/	690	534	156	43	60	53
1987 3/	825	741	84	40	2	42
1988 4/	753	629	124	57	9	58
1989 5/	864	690	174	96	4	74

1/ Excludes 11 homes in Hilo destroyed by high winds, February 16, 1986.

2/ Excludes 14 structures destroyed by volcanic activity and 1 by high winds, all in Hawaii County.

3/ Excludes 18 units destroyed by volcanic activity in Hawaii County.

4/ Excludes 6 units destroyed by volcanic activity in Hawaii County.

5/ Excludes 12 units destroyed by volcanic activity in Hawaii County.

Source: Compiled from County building departments by the Hawaii State Department of Business and Economic Development.

Table 613.-- HONOLULU CONSTRUCTION COST INDEXES: 1982 TO 1990

[1982=100. Data are annual averages unless otherwise specified]

Year	Single-family residence			High-rise building		
	All components	Materials prices	Labor 1/	All components	Materials prices	Labor 1/
1982	100.0	100.0	100.0	100.0	100.0	100.0
1983	109.5	111.3	107.3	106.9	107.4	106.7
1984	114.3	113.1	115.8	110.9	108.0	114.2
1985	117.4	115.2	120.1	113.5	108.7	118.2
1986	121.5	119.1	124.4	116.8	110.8	122.4
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	129.9
1989	138.5	137.2	140.3	133.2	126.7	138.8
1990 2/	146.4	147.8	144.8	143.7	143.7	143.6

1/ Wages and benefits.
2/ July.
Source: First Hawaiian Bank, Research Department, records.

Table 614.-- HOUSING UNITS CONVERTED FROM RENTAL UNITS TO CONDOMINIUM UNITS: 1963 TO 1989

Subject	1963-1983	1984	1985	1986	1987	1988	1989
Projects	258	32	18	36	35	34	47
Housing units	11,370	607	117	151	398	99	150

Source: 1963-1980 compiled by Real Estate Research Center, College of Business Administration, University of Hawaii, from the records of the Hawaii Real Estate Commission; 1981 and later years from Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Real Estate Commission, records.

Table 615.-- CONDOMINIUM PROJECTS REGISTERED WITH THE STATE OF HAWAII: 1985 TO 1989

Subject	1985	1986	1987	1988	1989
Projects	69	87	94	104	153
Residential units	1,477	1,346	2,28[illegible]	2,060	2,575
Business or commercial units 1/ .	269	405	153	133	139

1/ Includes units in agricultural condominium projects which can be used for residential or business/commercial purposes (110 in 1987, 50 in 1988, 120 in 1989).

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Real Estate Commission, records.

Table 616.-- TIME SHARE PROPERTIES AND UNITS, BY GEOGRAPHIC AREAS: OCTOBER 18, 1990

[Time sharing refers to the use, occupancy, or possession of accommodations among various persons for less than 60 days in any year, for any occupant]

Geographic area	Properties	Units
State total	63	2,497
Oahu	17	940
Waikiki	15	867
Rest of Oahu	2	73
Hawaii	6	122
Kauai	16	759
Maui	24	676

Source: State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Time Sharing Office, records.

Table 617.-- CONDOMINIUM AND COOPERATIVE HOUSING UNITS, BY COUNTIES: 1987

Type of housing unit	State total	Honolulu	Maui	Hawaii	Kauai
Condominium units 1/	98,111	74,325	14,100	5,629	4,057
Cooperative units	2,832	2,738	94	-	-

1/ Includes some nonresidential condominium units.
Source follows next table.

Table 618.-- CONDOMINIUM HOUSING UNITS, TOTAL AND OWNER OCCUPIED, BY LAND OWNERSHIP, BY COUNTIES: 1987

[Includes some nonresidential condominium units]

Ownership of land and condominium unit	State total	Honolulu	Maui	Hawaii	Kauai
All condo units	98,111	74,325	14,100	5,629	4,057
On fee simple land	34,856	22,988	6,462	3,314	2,092
On leased land	59,395	49,825	6,120	1,803	1,647
Other categories 1/	3,860	1,512	1,518	512	318
Owner occupied condo units	26,424	25,203	753	369	99
On fee simple land	9,690	8,912	475	251	52
On leased land	16,734	16,291	278	118	47

1/ Such as fee and leasehold condominium units sold on agreement of sale.
Source: Legislative Reference Bureau, Ownership Patterns of Land Beneath Hawaii's Condominium and Cooperative Housing Projects (Report No. 6, 1987), pp. 8, 10-12, and 27.

Table 619.-- TENURE AND CONTROL OF HOUSING UNITS: ANNUALLY, 1970 TO 1990

[Data include condominium units occupied or intended for occupancy by nonresidents]

Year	All housing units 1/	Owner occupied units 2/		Renter occupied and vacant units		
		Land owned	Land leased	Private 3/	Federal 4/	State and County 4/
1970 ..	216,774	68,422	20,802	106,821	14,439	6,290
1971 ..	228,749	72,086	21,732	113,531	15,089	6,311
1972 ..	238,770	75,939	24,565	117,111	14,959	6,196
1973 ..	250,742	78,878	26,776	123,934	15,071	6,083
1974 ..	266,828	82,494	30,333	131,368	16,373	6,260
1975 ..	284,120	85,264	30,543	145,276	16,386	6,651
1976 ..	298,339	88,284	33,730	152,578	17,225	6,522
1977 ..	306,989	89,980	34,549	158,223	17,493	6,744
1978 ..	315,513	92,989	35,869	161,728	18,653	6,274
1979 ..	324,261	96,273	36,540	165,045	19,022	7,381
1980 ..	334,235	100,478	36,986	170,963	19,437	6,371
1981 ..	342,873	104,677	37,413	174,753	19,427	6,603
1982 ..	348,980	106,147	37,372	179,579	19,392	6,490
1983 ..	353,414	108,761	35,586	183,249	19,304	6,514
1984 ..	359,107	111,767	35,545	185,657	19,294	6,844
1985 ..	364,436	114,548	35,681	187,905	19,280	7,022
1986 ..	370,548	117,090	35,811	191,475	19,264	6,908
1987 ..	377,898	121,019	35,959	194,582	19,265	7,073
1988 ..	385,290	126,563	33,579	198,707	19,394	7,047
1989 ..	393,354	132,691	30,996	202,959	19,421	7,287
1990 ..	402,644	138,520	29,047	208,165	19,427	7,485

1/ As of April 1. Data for 1981-1990 are provisional.

2/ As indicated by the number of taxpayers claiming home exemptions. The number of owner occupied housing units reported by the U.S. Census of Housing is somewhat higher than the corresponding number based on taxpayer home exemptions, chiefly because of differences in definitions. Data for 1977 and later years refer to January 1; data for 1970-1976, to July 1.

3/ Calculated as a residual after accounting for the known components, some of which pertain to dates other than April 1, and thus not attributable to any specific date.

4/ As of April 1. Data include housing units leased from private owners.

Source follows table 620.

Table 620.-- HOUSING UNITS STANDING, BY COUNTIES: ANNUALLY, 1970 TO 1990

[As of April 1. Data include condominium units occupied or intended for occupancy by nonresidents. The 1981-1990 estimates are provisional]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
1970 ..	216,774	174,742	42,032	18,972	9,021	14,039
1971 ..	228,749	184,101	44,648	20,061	9,298	15,289
1972 ..	238,770	190,973	47,797	21,648	9,555	16,594
1973 ..	250,742	198,970	51,772	23,578	10,092	18,102
1974 ..	266,828	210,940	55,888	25,282	10,700	19,906
1975 ..	284,120	223,647	60,473	26,694	11,347	22,432
1976 ..	298,339	232,669	65,670	28,131	11,934	25,605
1977 ..	306,989	237,571	69,418	29,453	12,433	27,532
1978 ..	315,513	243,103	72,410	30,579	12,841	28,990
1979 ..	324,261	247,465	76,796	32,283	13,610	30,903
1980 ..	334,235	252,038	82,197	34,215	14,828	33,154
1981 ..	342,873	254,969	87,904	36,180	16,314	35,410
1982 ..	348,980	256,967	92,013	37,738	17,081	37,194
1983 ..	353,414	259,574	93,840	38,702	16,937	38,201
1984 ..	359,107	262,902	96,205	39,762	17,539	38,904
1985 ..	364,436	266,127	98,309	40,820	17,979	39,510
1986 ..	370,548	269,390	101,158	41,944	18,446	40,768
1987 ..	377,898	273,054	104,844	43,135	18,929	42,780
1988 ..	385,290	276,509	108,781	44,700	19,476	44,605
1989 ..	393,354	279,166	114,188	47,035	20,173	46,980
1990 ..	402,644	282,653	119,991	50,019	21,054	48,918

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1989 (Statistical Report 213, October 1989), tables 1 and 2; Hawaii State Department of Business, Economic Development & Tourism, Housing Unit Estimates for Hawaii, 1980-1990 (Statistical Report 217, August 1990), tables 1 and 2.

Table 621.-- TENURE AND CONTROL OF HOUSING, BY COUNTIES: 1980 AND 1990

[Condominium units occupied by nonresidents are included in these estimates]

Year and county	All housing units 1/	Owner occupied units 2/		Renter occupied and vacant units		
		Land owned	Land leased	Private 3/	Federal 4/	State and County 4/
1980						
State total ..	334,235	100,478	36,986	170,963	19,437	6,371
City & Co. of Hon.	252,038	69,147	35,278	123,454	19,290	4,869
County of Hawaii ..	34,215	15,111	964	17,191	57	892
County of Kauai ...	14,828	5,551	126	8,833	64	254
County of Maui 5/ .	33,154	10,669	618	21,485	26	356
1990						
State total ..	402,644	138,520	29,047	208,165	19,427	7,485
City & Co. of Hon.	282,653	96,304	26,498	135,011	19,305	5,535
County of Hawaii ..	50,019	20,475	1,277	27,043	48	1,176
County of Kauai ...	21,054	7,705	357	12,602	65	325
County of Maui 5/..	48,918	14,036	915	33,509	9	449

1/ As of April 1. The 1990 data are preliminary.

2/ As of January 1. Based on the number of taxpayers claiming home exemptions, rather than on the census tabulations on tenure.

3/ Calculated as a residual and not attributable to any specific month.

4/ As of April 1.

5/ Includes Kalawao County (121 units in 1980 and 114 units in 1990, all owned by the State).

Source: 1980 from Hawaii State Department of Planning and Economic Development, Housing Unit Estimates for Hawaii, 1970-1984 (Statistical Report 167, August 20, 1984), table 1; 1990 from Hawaii State Department of Business, Economic Development & Tourism, Housing Unit Estimates for Hawaii, 1980-1990 (Statistical Report 217, August 1990), table 4.

Table 622.-- RESIDENT AND NONRESIDENT HOUSING UNITS, BY COUNTIES: ANNUALLY, 1977 TO 1989

Category and year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
RESIDENT 1/						
1977	301,904	237,059	64,845	29,123	11,843	23,879
1978	308,444	241,573	66,871	30,008	12,062	24,801
1979	315,728	245,101	70,627	31,548	12,623	26,456
1980	322,598	247,152	75,446	33,594	13,395	28,457
1981	328,679	249,330	79,349	34,921	14,458	29,970
1982	334,580	251,280	83,300	36,254	15,402	31,644
1983	340,001	254,827	85,174	36,933	15,931	32,310
1984	341,505	256,015	85,490	37,860	15,941	31,689
1985	342,632	257,111	85,521	38,541	15,903	31,077
1986	347,549	259,552	87,997	39,892	15,872	32,233
1987	356,002	263,818	92,184	41,033	16,298	34,853
1988	364,170	268,874	95,296	42,346	16,621	36,329
1989 (revised) ..	374,214	273,247	100,967	45,017	17,139	38,811
NONRESIDENT 2/						
1977	5,085	512	4,573	330	590	3,653
1978	7,069	1,530	5,539	571	779	4,189
1979	8,533	2,364	6,169	735	987	4,447
1980	11,637	4,886	6,751	621	1,433	4,697
1981	14,194	5,639	8,555	1,259	1,856	5,440
1982	14,400	5,687	8,713	1,484	1,679	5,550
1983	13,413	4,747	8,666	1,769	1,006	5,891
1984	17,602	6,887	10,715	1,902	1,598	7,215
1985	21,804	9,016	12,788	2,279	2,076	8,433
1986	22,999	9,838	13,161	2,052	2,574	8,535
1987	21,896	9,236	12,660	2,102	2,631	7,927
1988	21,120	7,635	13,485	2,354	2,855	8,276
1989	19,140	5,919	13,221	2,018	3,034	8,169

1/ Estimated as of April 1. Includes all housing units other than condominium units in rental pools and intended for transient occupancy.

2/ Condominium units in rental pools and intended for transient occupancy, based on February survey data from the Hawaii Visitors Bureau.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1989 (Statistical Report 213, October 1989), table 3; Hawaii State Department of Business, Economic Development & Tourism, Housing Unit Estimates for Hawaii, 1980-1990 (Statistical Report 217, August 1990), table 3.

Table 623.-- HOUSING UNITS IN STRUCTURE: 1980 TO 1989

Year	Sample size	All occupied units	One unit in structure		More than one unit
			Number	Percent 1/	
1980	650	307,137	172,615	59.6	116,909
1981	656	304,553	168,533	59.9	113,017
1982	574	314,527	175,075	58.5	124,249
1983	601	328,253	173,546	55.6	138,592
1984	597	321,463	172,119	56.3	133,359
1985	532	332,489	183,590	58.5	130,445
1986	501	333,091	173,757	56.5	133,647
1987	497	353,084	177,154	53.9	151,489
1988	514	363,480	212,515	61.2	134,925
1989	529	369,379	(NA)	...	(NA)

1/ Excludes units with unknown structure type.
Source follows next table.

Table 624.-- TENURE OF OCCUPIED HOUSING UNITS: 1980 TO 1989

Year	Sample size	All occupied units	Owner-occupied		Renter occupied	No cash rent
			Number	Percent		
1980	650	307,137	166,145	54.1	129,827	11,165
1981	656	304,553	176,757	58.0	118,207	9,589
1982	574	314,527	162,166	51.6	141,522	10,839
1983	601	328,253	161,416	49.2	159,191	7,646
1984	597	321,463	167,846	52.2	144,587	9,029
1985	532	332,489	184,621	55.5	138,541	9,328
1986	501	333,091	174,624	52.4	148,866	9,601
1987	497	353,084	172,672	48.9	174,425	5,987
1988	514	363,480	195,569	53.8	157,755	10,155
1989	529	369,379	214,429	58.1	136,907	18,043

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1980 to 1989; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 625.-- CHARACTERISTICS OF THE HOUSING INVENTORY, FOR OAHU: 1970, 1976, 1979, AND 1983

[Oahu was dropped from this survey after 1983]

Subject	1983	1979	1976	1970
All housing units	262,900	248,100	219,600	174,200
TENURE AND VACANCY STATUS				
All year-round housing units	262,800	247,900	219,300	174,100
Occupied	245,800	231,000	200,400	164,800
Owner occupied	120,600	117,200	96,100	74,200
Percent	49.0	50.7	47.9	45.0
Cooperatives and condominiums	21,500	20,700	13,900	(NA)
Renter occupied	125,200	113,800	104,300	90,600
Vacant year-round 1/	17,000	16,900	18,900	9,300
For sale only	1,200	900	5,100	1,100
Homeowner vacancy rate	0.9	0.8	5.0	1.5
For rent	6,200	7,300	6,600	4,500
Rental vacancy rate	4.7	6.0	6.0	4.7
Other vacant 1/	9,500	8,800	7,200	3,700
STRUCTURAL CHARACTERISTICS				
Units in structure: percent 1, detached	47.5	50.9	52.5	56.7
Year built: percent 1939 or earlier	9.8	11.1	12.6	15.7
Plumbing facilities: percent lacking some or all	0.8	1.5	1.6	3.0
Bathrooms: percent 2 or more	34.7	34.4	32.3	26.4
Kitchen facilities: percent incomplete or shared	2.1	2.1	2.7	2.9
Rooms: median	4.7	4.7	4.7	4.6
Bedrooms: percent 3 or more	50.4	51.8	53.5	50.9
Air conditioning: percent none	82.0	81.3	81.8	86.7
Basement: percent none	89.3	91.4	92.1	(NA)
Public sewer: percent not linked	8.6	8.4	11.2	14.4
OCCUPANCY CHARACTERISTICS				
Persons per occupied unit	3.08	3.18	3.30	3.60
Percent 1.01 or more persons per room:				
Owner occupied	5.6	6.4	7.5	15.5
Renter occupied	10.9	11.2	12.1	22.0
Percent moved into unit past 12 months:				
Owner occupied	5.1	9.2	8.6	(NA)
Renter occupied	30.4	34.5	39.8	(NA)

Continued on next page.

Table 625.-- CHARACTERISTICS OF THE HOUSING INVENTORY, FOR OAHU: 1970, 1976, 1979 AND 1983 -- Con.

Subject	1983	1979	1976	1970
FINANCIAL CHARACTERISTICS				
Median income of families and primary individuals:				
Owner occupied	$38,000	$28,900	$23,600	$14,900
Renter occupied	$16,000	$12,800	$11,000	$8,000
Owner occupied 1-unit structures:				
Median value	$163,400	$125,600	$79,600	$38,400
Median value-income ratio	4.1	4.2	3.1	2.6
Median selected monthly housing costs --				
Units with a mortgage	$617	$474	$381	(NA)
Units with no mortgage	$157	$102	$81	(NA)
Renter occupied:				
Median gross rent	$413	$278	$234	$141
Nonsubsidized units	$425	$288	$241	(NA)
Gross rent as percent of income	31	26	26	22
Nonsubsidized	31	26	27	(NA)
Median contract rent	$372	$254	$216	$132

NA Not available.

1/ Includes units rented or sold but not occupied, units held for occasional use, and units occupied entirely by persons with usual place of residence elsewhere.

Source: U.S. Bureau of the Census, Annual Housing Survey: 1983, Honolulu, Hawaii, SMSA (Current Housing Reports, H-170-83-48, June 1985), Part A, tables A-1 and A-2; Annual Housing Survey: 1979, Honolulu, Hawaii, SMSA (Current Housing Reports, H-170-79-48, August 1983), Part A, tables A-1 and A-2.

Table 626.-- HOUSING CHARACTERISTICS, BY COUNTIES: 1980

Subject	State total 1/	Honolulu	Hawaii	Kauai	Maui
Persons in occupied units	925,092	725,865	90,436	38,679	70,008
Per occupied unit	3.15	3.15	3.09	3.22	3.11
Total housing units	334,235	252,038	34,215	14,828	33,033
Year-round housing units:					
Number	332,213	250,866	33,954	14,544	32,728
Median rooms	4.4	4.3	4.7	4.6	3.9
One unit at address (percent) ..	59.5	56.6	76.1	81.1	54.9
Lacking complete plumbing for exclusive use (percent)	2.3	1.5	7.0	4.8	2.9
Occupied housing units:					
Number	294,052	230,214	29,237	12,020	22,510
With 1.01 or more persons per room (percent)	15.3	15.5	13.0	15.2	16.4
Owner-occupied units:					
Number	151,954	114,831	17,731	6,429	12,963
Percent of occupied units	51.7	49.9	60.6	53.5	57.6
Median value 2/ ($1,000)	118.1	129.5	71.2	89.7	112.1
Renter-occupied units:					
Number	142,098	115,383	11,506	5,591	9,547
Median contract rent 3/ (dollars)	271	276	220	176	306
Vacant units, total 4/	38,161	20,652	4,717	2,524	10,218
For sale only	2,153	1,321	455	98	278
Homeowner vacancy rate	1.4	1.1	2.5	1.5	2.1
For rent	16,289	9,002	1,883	1,490	3,913
Rental vacancy rate	10.3	7.2	14.1	21.0	29.1
Rented or sold, awaiting occupancy	4,518	2,415	835	321	946
Held for occasional use	4,409	2,311	853	318	906
Other vacant	10,792	5,603	691	297	4,175
Condominium units, total	71,708	56,390	3,072	1,853	10,393
Owner-occupied	24,730	23,474	298	86	872
Renter-occupied	22,053	19,812	726	154	1,361
Vacant 4/	24,925	13,104	2,048	1,613	8,160

Footnotes and source on next page.

Table 626.-- HOUSING CHARACTERISTICS, BY COUNTIES: 1980 -- Con.

1/ Includes Kalawao County (121 housing units), not shown separately.

2/ Estimated market value of property (house and lot), for one-family houses on less than 10 acres. The median value of owner-occupied condominium units was $98,600.

3/ Excluding no cash rent.

4/ Units temporarily occupied, or intended for occupancy, entirely by persons who have a usual residence elsewhere are classified as vacant. Shared ownership or time-sharing condominiums are classified as "vacant, held for occasional use."

Source: U.S. Bureau of the Census, 1980 Census of Housing, General Housing Characteristics, Hawaii, HC80-1-A13 (July 1982), tables 1, 5, 7, 46, and 48.

Table 627.-- HAWAII HOUSING AUTHORITY OPERATIONS: 1987 TO 1989

Subject	1987	1988 1/	1989
Total units owned by HHA, June 30	5,930	2/ 5,723	2/ 5,723
Occupied	5,870	5,675	5,641
Population in units, June 30	17,648	17,083	16,817
Per occupied unit	3.0	3.0	2.98
Total assets, June 30 (million dollars) ..	718	151	147
Operating revenues of HHA, fiscal year: 3/			
Gross ($1,000)	12,734	13,254	14,223
Net ($1,000)	870	5,567	6,571
Operating revenues per unit per month, fiscal year (dollars) 3/	183.41	200.03	227.98
Rent charged per unit per month, fiscal year (dollars) 3/	162.81	186.58	190.32

1/ Some functions of the Hawaii Housing Authority were transferred to the Housing Finance and Development Corporation by SLH 1987, Act 337, effective July 1, 1987. The 1988 and 1989 data presented in this table accordingly exclude HFDC units and assets.

2/ Federal low-rent, 5,213; State-subsidized, 510.

3/ Federal projects only; revenue amounts include Federal subsidies.

Source: Hawaii Housing Authority, records.

Table 628.-- HOUSING VACANCY SURVEYS OF OAHU: 1977 TO 1989

[Sponsored by the Federal Home Loan Bank of Seattle and conducted by U.S. mail carriers. Data for 1977-1981 have been adjusted to include newly completed but vacant units, omitted from base in earlier reports. No survey was published for 1984, 1985, 1987, and 1988]

Year and month	Total units	Vacant units: Used and new: Number	Vacant units: Used and new: Percent	Vacant units: Used	Vacant units: New	Units under con-struction
1977: April 1/ ...	215,923	5,472	2.5	3,399	2,073	2,228
1978: March	226,103	5,178	2.3	3,312	1,866	4,820
1979: May	233,631	4,081	1.7	2,584	1,497	4,754
1980: March	238,028	5,104	2.1	3,039	1,065	3,980
1981: March	240,354	5,235	2.2	3,306	1,929	2,400
1982: March	244,077	4,130	1.7	2,665	1,465	1,087
1983: March	241,355	3,253	1.3	2,558	695	2,002
1986: May	250,500	5,750	2.3	4,593	1,157	877
1989: Apr.-May ...	257,050	3,730	1.5	3,414	316	3,027
TYPE OF UNIT: 1989						
Single-family units:						
Detached	125,051	1,034	0.8	906	128	1,573
Attached	22,716	356	1.6	308	48	538
Multi-family units	108,934	2,340	2.1	2,200	140	916
Mobile homes	349	-	0	-	...	...

1/ Dated March 1977 in the original report but April 1977 thereafter. For survey data for 1955-1976, see Historical Statistics of Hawaii, p. 397.

Source: Federal Home Loan Bank of Seattle, Honolulu Housing Vacancy Survey (annual), as adjusted to 1982-1989 definitions.

Table 629.-- VACANCY RATES FOR HOUSING ON OAHU AND THE NEIGHBOR ISLANDS: ANNUAL AVERAGES, 1970 TO 1989

[Based on housing units sampled for the Hawaii Health Surveillance Program survey. Units occupied by households temporarily absent were classified as occupied. The base excludes units occupied by transients]

Year	Units sampled			Percent vacant		
	State total	Oahu	Other islands	State average	Oahu	Other islands
1970 1/ ..	6,107	3,217	2,890	3.2	3.5	3.0
1971	5,370	2,493	2,877	3.6	3.2	5.1
1972	7,177	5,423	1,754	3.9	3.5	5.4
1973	6,735	5,456	1,279	3.1	2.6	5.0
1974	6,301	4,982	1,319	4.1	3.9	4.7
1975	6,632	5,360	1,272	5.6	5.2	6.9
1976 2/ ..	2,440	1,817	623	5.1	5.0	5.6
1977	6,899	4,526	2,373	5.9	6.1	5.1
1978	6,690	4,102	2,588	4.0	3.8	4.5
1979	5,936	3,519	2,417	3.2	2.8	4.4
1980	6,499	3,613	2,886	4.2	3.9	5.0
1981	6,174	3,195	2,979	4.8	4.4	5.8
1982	6,509	3,468	3,041	3.9	3.4	5.4
1983	6,139	3,147	2,992	3.8	3.1	5.8
1984 3/ ..	7,238	3,827	3,411	4.5	3.1	6.5
1985	7,485	3,872	3,613	5.0	4.7	5.7
1986	7,143	3,653	3,490	4.5	4.5	4.5
1987	7,441	3,738	3,703	4.8	4.3	6.1
1988	7,330	3,625	3,705	3.2	3.0	3.7
1989	7,679	3,734	3,945	3.0	2.6	4.0

1/ Neighbor Island data based on last 9 months of 1970.
2/ Survey suspended during the first 6 months of 1976.
3/ Sample excluded housing units on military bases, included in other years.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, records.

Table 630.-- PERSONS AND HOUSEHOLD HEADS, TOTAL AND CIVILIAN, CHANGING RESIDENCE IN PAST YEAR: 1977 TO 1987

[Excludes persons in institutions or barracks, in Kalawao, or on Niihau]

Year surveyed	Movers		Percent moving 1/	
	Total	Civilians 2/	Total	Civilians 2/
Persons 1 year old and over:				
1977	153,357	112,867	18.3	15.3
1978	148,048	110,451	15.5	14.7
1979	139,025	103,705	16.2	13.3
1980	122,691	89,981	13.5	11.1
1981	137,717	105,767	15.0	12.8
1982	147,684	115,685	15.8	13.8
1983	135,496	96,824	14.1	11.4
1984 3/	140,509	101,730	14.4	11.6
1985	133,466	101,840	13.6	11.5
1986	130,796	99,990	13.1	11.1
1987	173,495	139,728	17.0	15.1
Household heads:				
1977	53,482	40,102	19.8	16.6
1978	48,875	36,968	18.9	16.0
1979	45,908	34,069	17.2	14.0
1980	40,654	29,370	14.3	11.5
1981	48,264	36,780	16.5	14.0
1982	51,817	39,870	17.2	14.7
1983	45,692	32,155	14.7	11.7
1984 3/	45,798	34,637	15.3	12.8
1985	42,923	31,778	14.4	11.8
1986	42,552	31,949	13.7	11.4
1987	53,748	42,753	17.0	14.9

1/ Based on number reporting place of residence one year earlier.

2/ Based on military status when surveyed. Excludes members of the armed forces and their dependents.

3/ Persons in households living on military bases were omitted from the 1984 survey, although included in other years. For purposes of this table, such persons were assumed to have the same response distribution as members of military households living in the civilian community.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, records.

Table 631.-- MOBILITY OF HOUSEHOLD HEADS, BY MILITARY STATUS: 1987

[Based on place of residence one year prior to survey date. Expanded from a sample. Excludes persons in institutions or military barracks, in Kalawao, or on Niihau]

Military status and residence of household head 1/	All household heads	Non-movers	Movers		Mobility not reported
			Number	Percent 2/	
State total	319,090	263,336	53,748	17.0	2,006
Military or dependent ...	31,537	20,009	10,995	35.5	533
Military	31,065	19,748	10,784	35.3	533
Military dependent	472	261	211	44.7	-
Civilian	287,553	243,327	42,753	14.9	1,473

1/ Military status of household head when surveyed.

2/ Based on number reporting.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 632.-- ESTIMATED NUMBER OF PERSONS HOMELESS ON A GIVEN DAY, BY COUNTIES: FEBRUARY TO APRIL 1990

Category	State total	Honolulu	Hawaii	Kauai	Maui
High estimate 1/	8,369	6,362	803	165	1,039
Low estimate 2/..............	7,023	5,833	336	165	689
In shelters	1,063	808	102	21	132
Receiving other services...	2,329	1,739	158	14	418
Unserved..................	3,631	3,286	76	130	139

1/ Based on number in "open shelters."

2/ Currently in any type of shelter.

Source: SMS Research & Marketing Services, Inc., Hawaii's Homeless (prepared for the Hawaii Housing Authority, July 2, 1990), p. 18.

Table 633.-- REAL ESTATE LICENSES, ACTIVE AND INACTIVE, BY TYPE OF LICENSE AND LOCATION: JUNE 1990

Type of license	Active	Inactive	Location	Active	Inactive
Total	16,588	9,370	Oahu	12,351	6,121
			Hawaii	1,653	973
Broker:			Maui	1,823	759
Individual ...	4,517	725	Kauai	670	411
Corporation or partnership	1,241	103	Molokai	63	17
			Lanai	2	3
Salesman	10,830	8,542	U.S. mainland ...	25	1,041
			Foreign	1	45

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, September 4, 1990.

Table 634.-- BUILDING VACANCY RATES FOR COMPETITIVE OFFICE SPACE AND RETAIL SPACE, FOR HONOLULU, BY LOCATION: 1987 TO 1990

[Rates are percent of space reported vacant in survey]

Type of space and location	May 1987	Oct. 1987	May 1988	Oct. 1988	May 1989	Oct. 1989	May 1990
Competitive office:							
Downtown	7.0	5.7	5.0	5.6	6.1	4.2	3.1
Downtown to Waikiki	6.9	5.6	4.1	1.6	1.3	9.0	4.5
Waikiki	1.5	4.1	3.5	1.1	(NA)	2.0	6.1
Other	16.0	13.9	10.0	10.7	9.3	3.0	8.3
Retail:							
Downtown	6.0	5.7	4.3	4.6	(NA)	(NA)	(NA)
Downtown to Waikiki	7.0	8.1	7.8	10.3	(NA)	(NA)	(NA)
Waikiki	15.8	5.0	18.9	3.1	(NA)	(NA)	(NA)
Other	3.7	1.3	1.5	4.4	(NA)	(NA)	(NA)

NA Not available.

Source: Semi-annual survey by Hastings, Martin, Conboy, Braig & Associates, Ltd., cited in Building Owners & Managers Associaton, Hawaii, Newsletter, July 1990.

Table 635.-- OFFICE SPACE, VACANCY RATES, AND RENTS, FOR OAHU, BY LOCATION: JANUARY 1990

Location	Office space: Buildings	Office space: 1,000 sq. ft.	Vacancy rates (percent)	Typical rent 1/ (dollars)
Oahu total	121	13,553	...	...
Downtown	51	7,342	3.2	2.70
Kapiolani/King corridor ...	21	2,337	1.2	2.60
Kakaako	11	1,077	7.7	2.30
Waikiki	8	1,042	3.0	2.43
Kalihi/Iwilei	8	834	12.6	1.55
Airport	3	242	2.1	1.85
Leeward	6	223	2.2	2.30
Windward	4	210	13.3	1.85
East Oahu	9	246	1.2	2.50

1/ Gross amount per square foot, per month, for competitive, high quality, well located buildings.

Source: Survey by Monroe & Friedlander published in Hawaii Business, February 1990 and analyzed in Downtown Improvement Association of Honolulu, "Oahu Office Space Inventory," The Downtowner, September 1990.

Table 636.-- MEDIAN PURCHASE PRICE OF EXISTING ONE-FAMILY HOMES, FOR OAHU: 1982 TO 1988

[Based on surveys of conventional first mortgages]

Subject	1982	1983	1984	1985	1986	1987	1988
Amount ($1,000)	129.1	135.0	138.7	150.6	161.6	177.6	174.7
Rank 1/	2	2	2	3	2	4	6

1/ Among 32 metropolitan areas.

Source: U.S. Office of Thrift Supervision, 1988 Savings and Home Financing Source Book, table D5, pp. D-5 to D-15.

Table 637.-- MULTIPLE LISTING SERVICE LISTINGS AND SALES, FOR OAHU: 1969 TO 1989

[Data include 1-family and condominium properties for all years and cooperative, commercial/industrial, business opportunities, income, and vacant properties through 1977 and from 1982 forward]

Year	Number listed	Number sold	Percent sold	Sales price (dollars)	
				Mean	Median
1969	2,606	1,422	54.6	46,333	...
1970	3,415	1,693	49.6	44,755	...
1971	4,165	2,157	51.8	58,651	...
1972	6,022	4,555	75.6	60,810	...
1973	7,845	5,348	68.2	70,769	...
1974	10,933	4,821	44.1	70,918	...
1975	11,271	4,174	37.0	71,485	...
1976	10,627	4,311	40.6	75,483	...
1977	10,597	5,523	52.1	81,213	...
1978-1979 1/	9,926	5,714	57.6	82,076	...
1979-1980 1/	13,506	8,009	59.3	103,698	...
1980-1981 1/	14,090	5,553	39.4	124,897	...
1981 2/	13,799	3,735	27.1	144,227	...
1982	13,484	2,948	21.9	143,046	...
1983	13,556	4,868	35.9	142,914	...
1984 3/	13,258	4,732	35.7	141,888	...
1985	13,558	5,261	38.8	137,650	...
1986	16,047	6,467	40.3	151,985	...
1987	12,887	8,855	68.7	188,200	130,500
1988	14,548	9,886	68.0	201,000	146,800
1989	13,873	9,757	70.3	238,257	...

1/ Year ended February 28 or 29.
2/ March through December.
3/ January 1 through December 3.
Source: Honolulu Board of Realtors, records.

Table 638.-- MULTIPLE LISTING SERVICE LISTINGS AND SALES, BY TYPE OF PROPERTY, FOR OAHU: 1987 TO 1989

Year and type of property	Number listed	Number sold	Percent sold	Sales price (dollars)	
				Mean	Median
1987					
Total	12,887	8,855	68.7	188,200	130,500
Single-family residential	4,329	3,111	71.9	282,500	185,000
Condominium/cooperative ..	7,686	5,433	70.7	126,100	104,500
Vacant land	412	200	48.5	291,300	160,000
Multi-family	106	40	37.7	460,400	350,000
Commercial/industrial	153	36	23.5	668,500	320,000
Business opportunities ...	201	35	17.4	55,800	25,000
1988					
Total	14,548	9,886	68.0	201,000	146,800
Single family residential	4,518	3,026	67.0	312,300	210,000
Condominium/cooperative ..	8,993	6,546	72.8	140,300	114,000
Vacant land	483	169	35.0	284,000	195,000
Multi-family	156	53	34.0	662,800	450,000
Commercial/industrial	140	54	38.6	611,300	200,000
Business opportunities ...	258	38	14.7	74,300	59,000
1989					
Total	13,873	9,757	70.3	238,257	...
Residential (1-family) ...	4,503	2,922	64.9	373,913	270,000
Condominium/cooperative ..	8,177	6,486	79.3	164,496	135,500
Vacant land	485	201	41.4	383,373	250,000
Multi-family	185	64	34.6	716,658	500,000
Commercial	153	47	30.7	775,976	410,000
Business opportunities ...	370	37	10.0	156,405	60,000

Source: Honolulu Board of Realtors, Multiple Listing Service records.

Table 639.-- MULTIPLE LISTING SERVICE UNITS SOLD, SINGLE-FAMILY RESIDENTIAL AND CONDOMINIUM, BY SELLING PRICE RANGE, FOR OAHU: 1988 AND 1989

Selling price range	Single-family residential		Condominium	
	1988	1989	1988	1989
All properties	3,026	2,922	6,546	6,486
Less than $50,000	3	4	200	92
$50,000, less than $75,000	8	6	1,057	645
$75,000, less than $100,000	63	21	1,447	931
$100,000, less than $125,000	104	50	1,095	970
$125,000, less than $150,000	336	98	956	1,117
$150,000, less than $175,000	449	182	587	844
$175,000, less than $200,000	443	271	361	614
$200,000, less than $225,000	246	251	181	322
$225,000, less than $250,000	284	333	133	240
$250,000, less than $275,000	168	265	132	158
$275,000, less than $300,000	173	254	88	131
$300,000, less than $400,000	306	546	147	216
$400,000, less than $500,000	164	225	53	83
$500,000, less than $600,000	68	150	22	29
$600,000, less than $700,000	42	63	23	29
$700,000, less than $800,000	25	51	14	11
$800,000, less than $900,000	35	31	19	9
$900,000, less than $1,000,000	23	25	13	11
$1,000,000 or more	86	96	18	34
Median value	$210,000	$270,000	$114,000	$135,500
Mean value	$312,300	$373,913	$140,300	$164,496

Source: Honolulu Board of Realtors, Multiple Listing Service records.

Table 640.-- AVERAGE MONTHLY RENTS FOR A ONE-BEDROOM, 800-SQ. FT. APARTMENT IN HONOLULU AND OTHER CITIES: 1990

City	Rent (dollars)	Index
Most expensive cities:		
Honolulu, Hawaii	890	237.3
Boston, Mass.	752	200.5
New York, N.Y.	733	195.3
San Jose, Calif.	700	186.7
Washington, D.C.	670	178.7
"Standard City, U.S.A."	375	100.0
Least expensive cities:		
Houston, Texas	288	76.8
Austin, Texas	285	76.0
Oklahoma City, Okalahoma	280	74.7

Source: Runzheimer International, cited in Pacific Business News, July 23, 1990, p. 14.

Table 641.-- CHARACTERISTICS OF SINGLE-FAMILY AND MULTI-FAMILY DEVELOPMENTS, FOR OAHU: 1984 TO 1989

Year	Single-family developments				Multi-family developments 1/		
	Average area (square feet)		Units sold	Average price (dollars)	Average living area (sq. ft.)	Units sold	Average price (dollars)
	House	Lot					
1984	1,261	4,613	1,176	140,700	720	504	81,373
1985	1,263	5,360	1,139	148,711	773	316	93,737
1986	1,191	4,887	1,392	154,411	858	727	108,656
1987	1,393	4,721	965	164,214	798	556	105,680
1988	1,264	4,429	1,399	168,543	683	293	113,696
1989	1,270	4,838	950	202,151	837	510	119,630

1/ Four stories or less.

Source: Bank of Hawaii, Construction in Hawaii, 1990 (1990), pp. 22 and 25.

Table 642.-- MORTGAGES, FORECLOSURES, AND AGREEMENTS OF SALE: 1984 TO 1989

Year	Mortgages recorded			Fore-closures 1/ ($1,000)	Mortgage assign-ments ($1,000)	Agree-ments of sale ($1,000)
	Number	Total value ($1,000)	Average value (dollars)			
1984 ...	28,200	3,136,606	111,227	47,844	4,291	345,120
1985 ...	30,777	3,809,595	123,780	81,525	3,566	257,588
1986 ...	48,602	7,109,021	146,270	139,757	6,260	187,307
1987 ...	49,657	6,508,957	131,079	51,382	4,038	256,328
1988 ...	41,841	7,159,347	171,104	(NA)	*5,420	239,933
1989 ...	47,826	10,464,959	218,834	(NA)	(NA)	234,280

* 11 months.

NA Not available.

1/ Commercial and residential projects.

Source: Data from Title Guaranty of Hawaii and Hawaii State Bureau of Conveyances, cited in the Bank of Hawaii, Construction in Hawaii, 1990 (1990), p. 35.

Table 643.-- NUMBER OF DEEDS FILED AND RECORDED AND APPROXIMATE VALUE OF LAND CONVEYED: 1987 TO 1990

[Years ended June 30. Data include leases, agreement of sales assignments, subleases, etc., as well as deeds]

Subject	1987	1988	1989	1990
Number of deeds filed and recorded	58,598	53,204	61,674	75,534
Approximate value of land conveyed ($1,000) ..	7,245,393	7,958,152	10,365,238	16,154,886

Source: Hawaii State Department of Land and Natural Resources, Bureau of Conveyances, records.

Table 644.-- APPROXIMATE VALUE OF LAND TRANSFERS, BY COUNTIES: 1987 TO 1989

[In dollars. For calendar years. Totals include leases, agreement of sales assignments, subleases, etc., as well as deeds]

County	1987	1988	1989
State total	7,020,141,251	9,468,113,350	13,303,281,000
Honolulu	4,820,850,101	6,705,645,400	8,514,925,700
Maui	1,169,182,200	1,177,183,891	2,446,997,200
Hawaii	641,667,050	1,139,148,059	1,671,483,100
Kauai	388,441,900	446,136,000	669,875,000

Source: Hawaii State Department of Land and Natural Resources, Bureau of Conveyances, records.

Table 645.-- INTEREST RATES AND OTHER CHARACTERISTICS OF CONVENTIONAL FIRST MORTGAGE LOANS ORIGINATED BY MAJOR TYPES OF LENDERS FOR THE PURCHASE OF SINGLE FAMILY HOMES: 1983 TO 1988

[For earlier years, 1973-1982, see source]

Year	Contract interest rate (percent)	Initial fees and charges (percent)	Effective interest rate (percent)	Term to maturity (years)	Purchase price ($1,000)	Loan-to-price ratio (percent)
1983	12.33	1.92	12.71	27.7	131.8	75.0
1984	12.20	2.22	12.66	26.7	134.5	70.6
1985	11.55	2.17	11.96	27.1	141.1	70.5
1986	9.52	2.13	9.88	26.6	161.2	71.9
1987	9.16	2.01	9.49	27.5	168.1	74.9
1988	8.82	1.90	9.12	28.5	170.0	71.4

Source: U.S. Office of Thrift Supervision, 1988 Savings & Home Financing Source Book, table D5, p. D-23.

Table 646.-- CHARACTERISTICS OF SINGLE FAMILY HOMES INSURED FHA SECTION 203 (B): 1988

Subject	Number
Number insured	2,122
Proposed	630
Existing	1,492
Amount ($1,000)	249,255
Averages:	
Age of structure (years)	12.8
Improved living area (square feet)	1,305
Lot size (square feet)	6,511
Number of rooms	6.0
Market price of site	59,774
Site to value ratio (percent)	42.8
Site price per square foot (dollars)	*5.96
Construction cost per square foot (dollars)	*62.17
Appraised value (dollars)	138,697
Sales price per square foot (dollars)	*126.07
Annual family income (dollars)	48,765

*Sample under 25.

Source: U.S. Department of Housing and Urban Development, Housing Information and Statistics Division, FHA Homes - 1988, pp. 33-64.

Table 647.-- FORECLOSURES: 1983 TO 1988

[For earlier years, 1975-1982, see source]

Subject	1983	1984	1985	1986	1987	1988
Number of foreclosures	204	440	261	156	154	55
Amount (mil. dol.)	69	96	33	22	25	13
Percent of total mortgages	2.5	3.8	1.3	0.9	0.9	0.4

Source: U.S. Office of Thrift Supervision, 1988 Savings & Home Financing Source Book, table B9, p. B-83.

Table 648.-- SEATING CAPACITIES OF SELECTED STADIUMS, THEATERS, AND CHURCHES: 1987-1988

Facility type and name	Seating capacity
Stadiums and sports arenas:	
Aloha Stadium	50,000
Aiea High School Stadium	9,600
Neal Blaisdell Center Arena 1/	8,731
Leilehua High School Stadium	6,500
Waipahu High School Stadium	6,500
Brigham Young University-Hawaii Cannon Activity Center	6,000
University of Hawaii Baseball Stadium	4,312
Theaters and auditoriums:	
Neal Blaisdell Center Arena 2/	8,780
Neal Blaisdell Center Exhibition Hall 3/	5,000
Francis Wong Stadium (Hoolulu Park Complex Multi-purpose Pavilion) 2/	4,500
Lahaina Civic Center Convention Hall 2/	4,050
Andrews Amphitheater	4,000
Hilo Civic Auditorium 2/	3,550
Waikiki Shell 4/	3,257
Pearlridge West Theater complex (12 theaters)	2,160
Neal Blaisdell Center Concert Hall	2,158
Kahala Theaters (5 theaters)	1,460
Waikiki 3 Theater	1,262
Hilton Hawaiian Village Dome	1,120
Kauai War Memorial Concert Theater	1,100
Waikiki 1 and 2 Theaters (each)	982
Kapiolani Theater	760
Cinerama Theater	646
Kennedy Theater	600
Ruger Theater	507
Richard T. Mamiya Theatre	500
Churches:	
Kawaiahao Church	1,300
Central Union Church (Sanctuary)	800
St. Theresa Co-Cathedral	800
St. Andrew's Cathedral	750
St. Anthony	750
Cathedral of Our Lady of Peace	700
St. Augustine	700
Star of the Sea	700

Continued on next page.

Table 648.-- SEATING CAPACITIES OF SELECTED STADIUMS, THEATERS, AND CHURCHES: 1987-1988 -- Con.

1/ Capacity in boxing configuration.
2/ Capacity in concert configuration.
3/ Capacity in reception configuration.
4/ Includes 1,299 temporary seating.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the Honolulu Fire Department, Fire Prevention Bureau; Honolulu Building Department; officials of the facilities listed.

Table 649.-- ELEVATORS, ESCALATORS, AND SIMILAR FACILITIES: DECEMBER 31, 1989

Facility	State total	Oahu	Hawaii		Maui	Molo-kai	Lanai	Kauai
			Hilo	Kona				
Total	4,354	3,566	125	135	359	2	12	155
Elevators	3,740	3,034	96	125	329	-	10	146
Under 9 stories:								
Hydro	890	600	36	44	111	-	9	90
Roped	1,298	973	50	81	152	-	1	41
9 to 18 stories	931	840	10	-	66	-	-	15
19 to 28 stories	369	369	-	-	-	-	-	-
29 to 38 stories	174	174	-	-	-	-	-	-
39 stories or more	78	78	-	-	-	-	-	-
Escalators and moving walks	290	281	6	-	1	-	-	2
Inclined lifts	9	2	3	1	1	-	-	2
Private industrial elevators	8	-	-	3	5	-	-	-
Manlifts	11	10	-	1	-	-	-	-
Chair lifts	13	10	-	2	-	-	-	1
Dumbwaiters	280	228	20	2	22	2	2	4
Other facilities	3	1	-	1	1	-	-	-

Source: Hawaii State Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Boiler and Elevator Inspection Bureau, records.

Table 650.-- TALLEST STRUCTURES, BY ISLANDS: MARCH 1990

Island and structure	Location	Year completed	Height	
			Stories	Feet
BUILDINGS 1/				
Hawaii:				
Bayshore Towers	Hilo	1970	15	135
Maui:				
Kalana O Maui (County Bldg.)	Wailuku	1972	9	140
Royal Lahaina Hotel	Kaanapali	1970	12	132
Molokai:				
Molokai Light Station	Kalaupapa	1909	...	138
Oahu:				
Waterfront Towers	425 South Street	(UC)	46	400
Kauai:				
Westin Kauai Hotel	Lihue	1959	10	107
OTHER STRUCTURES				
Hawaii:				
Coast Guard Loran Station	Upolu Point	1958	...	625
Maui:				
KMVI Radio Tower	Wailuku	1947	...	455
Lanai:				
Storage tanks	Manele Harbor	...	...	50
Molokai:				
KAIM Radio Tower	Kalua Koi	1981	...	410
Oahu:				
VLF Antenna	Lualualei	1972	...	1,503
Kauai:				
Communication Engineers Tower	Mana	1964	...	400
Kure Atoll:				
Loran Transmitting Tower .	Kure Atoll	1962	...	625

UC Under construction.

1/ Shown separately for the tallest in feet and also (if different) for the tallest in number of stories.

Source: Compiled by DBED from Hawaii County Dept. of Research and Development, Maui County Dept. of Public Works, City and County of Honolulu Building Dept., Kauai County Dept. of Public Works, and 14th Coast Guard District.

Section 22

MANUFACTURES

This section presents statistics on the manufacturing segment of the economy, including sugar processing and pineapple canning. Additional information on manufacturing workers appears in Sections 12 and 15.

The number of manufacturing establishments in Hawaii increased from 697 in 1967 to 1,020 in 1987. The value added by manufacture rose from $326 million in 1967 to $786 million in 1977 and $1,411 million in 1987. More than three-fourths of all manufacturing activity in the State in 1982 was on Oahu. Food processing--mostly sugar and pineapple--accounted for 49 percent of the value added by manufacture in 1986. In 1989, the general excise and use tax base for diversified manufacturing (that is, manufacturing exclusive of sugar processing and pineapple canning) was $631 million. There were two pineapple canneries and 11 sugar mills in Hawaii in 1989. Canned and fresh pineapple sales in 1989 totaled $242 million, a level maintained for almost a decade. Sugar production in 1989 amounted to 864,000 short tons, the lowest total in 31 years. The value of sugar production (including commercial molasses) in 1989 was $322 million, compared with the record of $677 million set in 1974. Important manufactures other than food processing include apparel, printing and publishing, and stone, clay, and glass products.

Sources for data on this subject include the quinquennial United States Census of Manufactures, most recently conducted for 1987, the Annual Survey of Manufactures, publications of the Hawaii State Department of Agriculture and Department of Taxation, and the Hawaiian Sugar Planters' Association's annual report, HSPA Sugar Manual. Historical Statistics of Hawaii, Section 16, contains the figures for earlier years. Statistics for the nation as a whole appear in Section 27 of the Statistical Abstract of the United States: 1990.

Table 651.-- STATISTICAL SUMMARY OF MANUFACTURES: 1963 TO 1982

Subject	1963	1967	1972	1977	1982
All establishments:					
Total	672	697	773	949	966
With 20 employees or more	203	215	238	231	237
All employees:					
Number (1,000)	25.1	25.4	24.8	25.0	23.6
Payroll (million dollars)	109.0	139.6	191.1	276.8	360.3
Production workers:					
Number (1,000)	18.7	19.0	17.7	17.4	16.0
Hours (millions)	33.2	35.9	33.1	31.3	29.9
Wages (million dollars) .	67.5	86.9	113.7	160.5	217.5
Value added by manufacture 1/ (million dollars)	261.1	326.2	410.0	785.5	1,119.6
Cost of materials 2/ (million dollars)	(NA)	399.6	548.3	1,176.1	2,357.5
Value of shipments 2/ (million dollars)	(NA)	723.4	955.6	1,974.0	3,443.0
New capital expenditures (million dollars)	15.4	26.0	46.7	44.4	89.4

NA Not available.

1/ Data for 1982 not directly comparable to data for earlier years; see source for discussion.

2/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 1, and 1977 Census of Manufactures, Hawaii, MC77-A-12 (October 1980), table 2a.

Table 652.-- STATISTICAL SUMMARY OF MANUFACTURES: 1983 TO 1987

Subject	1983	1984	1985	1986	1987
All establishments:					
Total	(NA)	(NA)	(NA)	(NA)	1,020
With 20 employees or more	(NA)	(NA)	(NA)	(NA)	223
All employees:					
Number (1,000)	22.6	22.5	23.0	23.1	22.1
Payroll (million dollars)	375.9	383.3	400.7	424.0	436.1
Production workers:					
Number (1,000)	14.9	15.6	15.8	15.7	15.3
Hours (millions)	29.0	29.3	28.0	29.0	29.0
Wages (million dollars) .	223.8	223.3	228.5	239.3	254.6
Value added by manufacture (million dollars)	1,045.9	1,046.4	1,195.3	1,173.9	1,411.0
Cost of materials 1/ (million dollars)	2,382.2	2,330.4	2,280.2	1,898.9	2,051.5
Value of shipments 1/ (million dollars)	3,414.5	3,409.6	3,477.3	3,086.4	3,457.0
New capital expenditures (million dollars)	60.6	69.4	76.1	47.3	100.2

NA Not available.

1/ Aggregate of cost of materials and value of shipments figures includes extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 1; 1987 Census of Manufactures, United States, MC87-SUM-1(P) (September 1989), table 3.

Table 653.-- STATISTICAL SUMMARY OF MANUFACTURES, BY COUNTIES: 1982

Subject	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
All establishments 1/ (number) ...	967	780	99	25	63
With 20 employees or more	237	200	18	7	12
All employees:					
Number (1,000)	23.6	17.9	2.4	0.7	2.6
Payroll (million dollars)	360.4	279.4	37.9	12.1	30.9
Production workers:					
Number (1,000)	16.0	11.9	1.9	0.5	1.7
Hours (millions)	29.9	21.6	3.9	1.0	3.4
Wages (million dollars)	217.5	158.3	29.0	8.3	21.8
Value added by manufacture (million dollars)	1,119.6	901.5	100.6	26.6	90.8
Cost of materials 2/ (million dollars)	2,357.5	2,078.5	130.1	58.3	90.7
Value of shipments 2/ (million dollars)	3,443.0	2,947.3	229.6	84.9	181.1
New capital expenditures (million dollars)	89.4	58.4	7.5	5.9	17.6

1/ Includes establishments with payroll at any time during the year.

2/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1982 Census of Manufactures, Hawaii, MC82-A-12 (April 1985), table 4.

Table 654.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP: 1986

[Includes operating manufacturing establishments and auxiliaries. Includes major groups with 150 employees or more]

SIC code	Major group	All employees: Number (1,000)	All employees: Payroll (million dollars)	Production workers: Number (1,000)	Production workers: Hours (millions)	Production workers: Wages (million dollars)
	All groups	23.1	424.0	15.7	29.0	239.3
20	Food and kindred products	9.5	179.9	6.6	12.7	104.1
23	Apparel and other textile products	4.2	43.1	3.3	6.6	33.1
24	Lumber and wood products	.4	5.5	.3	.5	4.0
25	Furniture and fixtures	.2	3.9	.2	.4	2.4
26	Paper and allied products	.3	6.5	.2	.4	4.1
27	Printing and publishing	(D)	(D)	(D)	(D)	(D)
28	Chemicals and allied products	.4	8.1	.2	.3	3.6
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)
30	Rubber and miscellaneous plastics products	(S)	(S)	(S)	(S)	(S)
32	Stone, clay, and glass products	1.0	23.0	.7	1.3	16.4
34	Fabricated metal products	.6	11.8	.5	.8	8.8
35	Machinery, except electrical	.3	4.9	.2	.4	3.1
37	Transportation equipment	.4	7.8	.3	.5	5.7
39	Miscellaneous manufacturing industries	.6	6.4	.4	.6	3.6
--	Auxiliaries	.6	21.3	-	-	-

Continued on next page.

Table 654.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP: 1986 - Con.

[Includes operating manufacturing establishments and auxiliaries. Includes major groups with 150 employees or more]

SIC code	Major group	Value added by manufacture (million dollars)	Cost of materials 1/ (million dollars)	Value of shipments 1/ (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
	All groups	1,173.9	1,898.9	3,086.4	47.3	338.5
20	Food and kindred products	573.7	752.1	1,322.1	27.8	136.9
23	Apparel and other textile products	71.3	92.7	164.6	2.5	31.9
24	Lumber and wood products	10.9	13.5	24.8	.1	4.6
25	Furniture and fixtures	5.1	3.1	9.0	(D)	1.9
26	Paper and allied products	19.4	23.3	42.7	1.2	5.0
27	Printing and publishing	(D)	(D)	(D)	(D)	(D)
28	Chemicals and allied products	3.5	41.3	46.3	(D)	12.8
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)
30	Rubber and miscellaneous plastics products	(S)	(S)	(S)	(D)	(S)
32	Stone, clay, and glass products	46.4	69.6	116.3	2.7	13.9
34	Fabricated metal products	19.7	62.5	84.9	(D)	14.8
35	Machinery, except electrical	8.6	4.7	13.9	.2	2.5
37	Transportation equipment	5.2	12.4	17.5	(D)	2.1
39	Miscellaneous manufacturing industries	16.0	19.6	34.1	.1	10.4
--	Auxiliaries	-	-	-	-	-

D Withheld to avoid disclosing data for individual companies.

S Withheld because estimate did not meet publication standards.

1/ Aggregate of cost of materials and value of shipments includes extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 2.

Table 655.-- PLANT CAPACITY UTILIZATION RATES: FOURTH QUARTER ESTIMATES 1983 TO 1988

[The sample of manufacturing plants located in Hawaii was not selected specifically to represent the state but is a by-product of the national survey. Consequently, the state data are subject to high sampling variability that may disguise real movement in the series]

Type of rate	Fourth quarter estimates					
	1983	1984	1985	1986	1987	1988
Preferred rate 1/	83	84	87	87	89	92
Practical rate 2/	73	81	83	78	85	88

1/ The preferred level of operations is defined as a level, normally between actual operations and practical capacity, which the manufacturer would prefer not to exceed due to costs or other considerations. In this table, the preferred utilization rate represents the ratio of actual to preferred level of operations.

2/ Practical capacity is broadly defined as the greatest output the plant could achieve within the framework of a realistic work pattern. The practical capacity utilization rate is the ratio of actual operations to the practical capacity level.

Source: U.S. Bureau of the Census, Industry Division, records.

Table 656.-- MANUFACTURING SALES RECEIPTS: 1985 TO 1988

[Millions of dollars]

Category	1985	1986	1987	1988
Total manufacturing ...	2,235.5	1,960.5	2,138.5	2,227.5
Sugar processing	340.8	359.7	354.5	337.5
Pineapple canning	171.7	184.9	202.9	191.7
Petroleum	1,115.9	780.0	943.9	1,036.3
Diversified manufacturing ..	538.3	565.4	588.3	606.7

Source: Bank of Hawaii, 1989 Annual Economic Report, p. 43.

Table 657.-- GENERAL EXCISE TAX BASE FOR MANUFACTURING: 1979 TO 1989

[In thousands of dollars. Data exclude sugar processing, pineapple canning, and petroleum refining, and are on a cash basis accounting]

Year reported 1/	Tax base	Year reported 1/	Tax base	Year reported 1/	Tax base
1979	565,221	1983	511,823	1987	595,140
1980	626,004	1984	519,601	1988 2/ ..	629,303
1981	630,732	1985	527,673	1989 2/ ..	630,997
1982	530,598	1986	568,532		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January and hence these annual totals generally refer to an "income year" ended November 30.

2/ Data exclude tax base for unallocated collections, distributed for earlier years. Also, manufactured goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1988.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 658.-- MANUFACTURING CLIMATE: 1989

Factor	States ranked	Hawaii rank
Overall rank (among low manufacturing intensity States only)	21	19
State and local government fiscal policies	50	21
State regulated employment costs	50	14
Labor costs	50	48
Productivity of resources	50	45

Source: 11th Annual Grant Thornton Manufacturing Climates Study (August 1990), pp. 13 and 55.

Table 659.-- PINEAPPLE COMPANIES AND CANNERIES AND SUGAR COMPANIES AND MILLS: 1940 TO 1989

Year	Pineapple (end of canning season)		Sugar (December 31)	
	Companies	Canneries	Companies 1/	Mills
1940	8	8	38	34
1945	7	7	36	32
1950	9	8	28	26
1955	10	8	28	26
1960	8	9	27	27
1965	6	6	25	27
1970	4	4	23	26
1975	3	3	16	17
1980	3	3	15	14
1985	3	2	14	12
1988	3	2	12	11
1989	3	2	13	11
ISLANDS: 1989				
Hawaii	-	-	3	3
Maui	1	1	3	2
Oahu	2	1	2	2
Kauai	-	-	5	4

1/ Excludes cooperatives.

Source: Pineapple Growers Association of Hawaii, records; Hawaiian Sugar Planters' Association, Hawaiian Sugar Manual (annual); Hawaii State Department of Agriculture, records.

Table 660.-- SUGAR AND MOLASSES PRODUCTION: 1969 TO 1989

Year	Cane land (acres)		Cane used for sugar (short tons)	Sugar produced (short tons)		Molasses produced (short tons)
	Total area	Harvested area 1/		96° raw value	Equivalent refined	
1969 ...	242,216	113,232	10,839,272	1,182,414	1,105,060	340,330
1970 ...	238,997	113,816	10,457,377	1,162,071	1,086,000	322,480
1971 ...	232,278	115,810	10,685,019	1,229,976	1,149,510	330,227
1972 ...	229,611	108,456	9,929,068	1,118,883	1,045,708	307,543
1973 ...	226,580	108,189	9,645,452	1,128,529	1,054,723	301,500
1974 ...	224,227	95,826	9,082,684	1,040,742	972,677	293,380
1975 ...	221,426	105,125	9,485,299	1,107,199	1,034,788	301,335
1976 ...	221,551	99,926	9,172,649	1,050,457	981,757	275,352
1977 ...	220,729	96,770	8,994,388	1,033,739	966,132	284,349
1978 ...	220,697	99,355	9,263,190	1,028,933	961,641	310,238
1979 ...	218,773	100,610	9,632,135	1,059,737	990,430	325,843
1980 ...	217,718	97,358	9,214,136	1,023,232	956,313	315,088
1981 ...	216,099	97,573	8,831,477	1,047,541	979,032	311,719
1982 ...	204,749	89,261	8,807,998	982,913	918,630	287,190
1983 ...	194,258	92,808	8,926,358	1,044,204	975,913	303,254
1984 ...	188,396	89,541	8,453,721	1,061,814	992,371	314,202
1985 ...	187,858	83,029	7,916,459	1,012,249	946,048	271,645
1986 ...	184,181	83,583	8,379,463	1,042,452	974,276	290,422
1987 ...	180,966	79,498	8,012,899	979,209	915,169	283,250
1988 ...	177,693	78,715	7,602,414	928,195	867,491	274,375
1989 ...	170,813	74,660	7,078,479	863,614	817,752	229,377

1/ The average growth of a crop is 22 to 26 months. Only a portion of the total acreage in cane is harvested each year.

Source: Hawaiian Sugar Planters' Association, HSPA Sugar Manual (annual), and records.

Table 661.-- AVERAGE RAW SUGAR PRICE AND SUGAR INDUSTRY EMPLOYMENT AND EARNINGS: 1969 TO 1989

Year	Average raw sugar price 1/ (cents per lb.)	Hourly-rated employees		Industry-wide strikes (weeks)	Average daily earnings 2/ (dollars)	
		Average number 3/	Total man-days		Cash wages	Employee benefits
1969 ...	7.75	9,213	2,066,244	5	23.26	9.76
1970 ...	8.08	8,908	2,139,183	-	24.24	10.00
1971 ...	8.52	8,610	2,077,011	-	26.08	10.27
1972 ...	9.10	8,127	1,934,563	-	29.09	11.23
1973 ...	10.30	7,900	1,897,369	-	30.86	12.48
1974 ...	29.43	7,700	1,744,346	6	34.41	15.81
1975 ...	22.49	7,800	1,937,973	-	37.34	15.66
1976 ...	13.31	7,500	1,854,272	-	43.12	17.28
1977 ...	11.11	7,200	1,660,298	3	43.92	19.97
1978 ...	13.74	7,200	1,771,530	-	47.06	21.28
1979 ...	15.20	7,065	1,762,838	-	50.49	22.21
1980 ...	30.18	7,076	1,793,237	-	56.72	24.68
1981 ...	19.74	7,282	1,806,020	-	61.51	27.71
1982 ...	19.94	6,816	1,519,732	-	65.11	30.83
1983 ...	22.04	6,543	1,565,928	-	66.80	32.00
1984 ...	21.74	6,319	1,467,127	-	68.88	34.71
1985 ...	20.39	5,751	1,323,525	-	68.72	35.99
1986 ...	20.90	5,413	1,290,067	-	69.28	34.24
1987 ...	21.83	5,222	1,261,209	-	71.36	41.83
1988 ...	22.12	5,110	1,204,708	-	72.46	34.56
1989 ...	22.76	4,721	1,129,526	-	74.64	41.92

1/ Average New York raw sugar price computed over all the days of the year (Hawaiian basis). The New York spot price was suspended from November 2, 1977 to August 20, 1979; figures for that period are based on Clearing Association settlement prices. New York spot price "nearby futures" used beginning June 1985.

2/ For non-supervisory employees.

3/ Adults only.

Source: Hawaiian Sugar Planters' Association, HSPA Sugar Manual (annual), as revised and updated.

Table 662.-- VALUE OF SALES AND GOVERNMENT PAYMENTS FOR PINEAPPLE AND SUGAR PRODUCTION: 1970 TO 1989

[In millions of dollars. Calendar year data unless otherwise specified]

Year	Pineapple		Sugar		
	Canned fruit and juices 1/	Fresh market sales 2/	Value of production		Government sugar support payments
			Raw sugar 96°	Commercial molasses	
1970 ..	135.0	3.60	180.7	7.1	10.3
1971 ..	137.7	3.70	196.3	6.7	10.7
1972 ..	140.5	4.90	176.6	8.1	9.7
1973 ..	135.0	7.40	203.8	18.4	9.5
1974 ..	118.2	8.85	659.2	17.4	8.6
1975 ..	126.6	10.08	354.6	11.5	-
1976 ..	130.0	14.49	245.5	11.5	-
1977 ..	140.0	21.58	219.1	7.7	48.7
1978 ..	133.4	29.45	269.5	15.7	8.1
1979 ..	176.3	30.08	322.2	23.5	-
1980 ..	192.2	34.34	566.4	27.7	-
1981 ..	172.0	45.63	314.2	13.7	-
1982 ..	156.1	49.92	343.9	7.6	-
1983 ..	171.6	47.40	396.5	13.7	-
1984 ..	202.0	47.60	382.9	10.1	-
1985 ..	171.7	50.84	331.9	8.9	-
1986 ..	184.9	53.46	348.4	13.5	-
1987 ..	202.9	48.51	325.0	10.9	-
1988 ..	191.7	55.33	312.9	11.1	-
1989 ..	186.4	55.49	313.6	8.4	-

1/ Processor value of canned fruit and juice production and by-products shipped out-of-State and sold within State. Prior to 1979, data are for pack years beginning June 1.

2/ Value FAS shipping point for outshipments, delivered wholesalers local sales.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Section 23

DOMESTIC TRADE AND SERVICES

This section presents statistics relating to retail and wholesale trade; hotels; and selected personal, business, automotive, repair, and amusement services, including the motion picture industry. Related data are included in Sections 7, 12, 14 and 15.

These activities have undergone rapid growth in recent decades, largely because of surging tourism and higher price levels. Retail sales increased from $5.2 billion in 1982 to $8.3 billion in 1987. Wholesale sales rose from $4.1 billion in 1982 to $5.4 billion in 1987. Hotels, amusements, and other services reported similar increases during this five-year period. General excise and use tax base data for-1989 indicate continued increases; between 1987 and 1989, the retailing tax base rose 23 percent, the wholesaling base by 27 percent, and the base for all services also by 27 percent. Major retail concentrations include Waikiki, Ala Moana Center, Pearlridge Center, and downtown Honolulu. In addition to civilian retail outlets, there are many commissaries, exchanges, clubs, package stores, gasoline stations and food services maintained by the armed forces; these facilities had sales of $558 million in 1988.

Growth has been especially rapid for hotels and related facilities. The number of units in the State rose from 6,800 in 1959 to 68,000 in 1989. There were 453 hotels, motels and apartment-hotels in Hawaii on the latter date, including 296 on the Neighbor Islands. More than 28 percent of all transient units were in condominium structures. Occupancy rates averaged 87 percent in Waikiki and 67 percent on the Neighbor Islands during 1989. The average daily room rate was $96 in 1989. Total hotel rentals in 1989 exceeded $1.5 billion.

Fully 173 feature motion pictures and television specials and series were filmed in Hawaii in 1989, accounting for local expenditures of $62 million. The latter was an all-time high.

The major sources of these data are the United State Censuses of Retail Trade, Wholesale Trade, and Service Industries, most recently published for 1987. Statistics on the retailing, wholesaling, and services tax bases are available from the Hawaii State Department of Taxation. Data on hotel room counts, occupancy and other characteristics are published by the Hawaii Visitors Bureau and the firm of Pannell Kerr Forster. The Film Industry Branch of the Department of Business, Economic Development & Tourism compiles data on motion picture and television production. A summary of figures on trade and services in earlier years appears in Historical Statistics of Hawaii, Section 20. The Statistical Abstract of the United States: 1990, Section 28, presents similar data for other states and the nation as a whole.

Table 663.-- GENERAL EXCISE TAX BASE FOR TRADE AND SERVICE ACTIVITIES: 1979 TO 1989

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Retailing	Services 2/	Amusement, etc. 3/	Intermediary services	Wholesaling
1979	5,519,889	1,412,195	109,143	44,302	2,800,951
1980	6,109,628	1,743,003	121,562	53,244	2,986,877
1981	6,700,750	1,809,913	129,501	57,191	3,528,763
1982	6,874,963	1,905,068	130,280	69,775	3,207,768
1983	7,438,193	2,134,524	144,095	102,227	3,694,220
1984	8,111,893	2,368,415	153,723	128,875	4,025,324
1985	8,499,254	2,481,669	154,830	116,300	4,095,220
1986	9,239,373	2,784,169	159,881	127,992	4,443,166
1987 4/ ...	9,449,673	2,896,159	157,824	148,557	5,188,215
1988 4/ ...	10,385,974	3,287,715	165,729	182,138	5,683,815
1989 4/ ...	11,607,779	3,699,003	184,154	189,018	6,595,569

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Includes both business and professional services but excludes hotels, theater, amusement, broadcasting, and intermediary services.

3/ Theater, amusement, broadcasting, etc.

4/ Data exclude tax base for unallocated collections, distributed for earlier years.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 664.-- RETAIL ESTABLISHMENTS, BY PAYROLL STATUS: 1977 TO 1987

[Coverage differed somewhat from census to census]

Payroll status	Number of establishments			Sales (million dollars)		
	1977	1982	1987	1977	1982	1987
All retail establish. .	7,388	8,917	11,143	3,294	5,193	8,267
With payroll	5,273	6,139	7,195	3,223	5,102	8,084
Without payroll	2,115	2,778	3,948	71	92	183

Source: U.S. Bureau of the Census, 1977 Census of Retail Trade, Hawaii, RC77-A-12 (June 1979), table 1; 1982 Census of Retail Trade, Hawaii, RC82-A-12 (September 1984), table 1; 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), table 1, and Nonemployer Statistics Series, West, RC87-N-4 (February 1990), table 2.

Table 665.-- CHARACTERISTICS OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE, 1982 AND 1987, AND OAHU AND THE NEIGHBOR ISLANDS, 1987

[Excludes establishments without payroll. Also excludes establishments operated by the armed forces]

Subject	1982	1987		
		State total	Oahu	Neighbor islands
Number of establishments	6,564	7,195	4,918	2,277
Sales ($1,000)	5,100,237	8,084,416	6,079,556	2,004,860
Annual payroll ($1,000)	696,064	1,016,127	752,824	263,303
First quarter payroll ($1,000) ..	(NA)	242,236	178,477	63,759
Paid employees for pay period including March 12	81,950	101,969	74,485	27,484
Unincorporated businesses:				
Individual proprietorships	(NA)	1,215	792	423
Partnerships	(NA)	408	250	158

NA Not available.
Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), tables 1, 2, 8, and 9.

Table 666.-- RETAIL ESTABLISHMENTS WITH PAYROLL, FOR COUNTIES AND URBAN PLACES: 1987

[Excludes establishments without payroll. Also excludes establishments operated by the armed forces]

Geographic area	Number of establishments	Sales ($1,000)	Annual payroll ($1,000)	Paid employees for pay period including March 12
State total	7,195	8,084,416	1,016,127	101,969
Hawaii County	842	721,798	87,929	9,456
Hilo	378	403,435	49,429	5,077
Kailua	219	186,592	23,352	2,553
Balance of county	245	131,771	15,148	1,826
Honolulu County	4,918	6,079,556	752,824	74,485
Ahuimanu	5	(D)	(D)	(D)
Aiea	246	420,642	47,567	4,593
Ewa	2	(D)	(D)	(D)
Ewa Beach	16	9,087	1,199	158
Hauula	10	10,815	1,202	123
Heeia	3	3,288	786	78
Hickam Housing	-	-	-	-
Honolulu	3,644	4,451,451	559,406	54,846
Iroquois Point	-	-	-	-
Kahaluu	1	(D)	(D)	(D)
Kailua	173	175,779	22,961	2,383
Kaneohe	188	292,847	31,582	3,036
Laie	7	7,307	972	156
Maile	5	2,651	475	57
Makaha	8	6,780	639	98
Makakilo City	3	(D)	(D)	(D)
Maunawili	8	3,199	282	30
Mililani Town	35	68,832	7,728	588
Mokapu	1	(D)	(D)	(D)
Nanakuli	9	9,914	788	90
Pearl City	101	137,280	17,042	1,806
Schofield Barracks ...	3	432	85	9
Wahiawa	102	71,320	10,233	1,177
Waialua	12	5,564	653	72
Waianae	39	49,897	5,855	611
Waimanalo	25	15,660	2,417	268
Waimanalo Beach	-	-	-	-
Waipahu	154	208,664	22,902	2,014
Waipio Acres	-	-	-	-
Balance of county	118	99,948	15,677	2,117

Continued on next page.

Table 666.-- RETAIL ESTABLISHMENTS WITH PAYROLL, FOR COUNTIES AND URBAN PLACES: 1987 -- Con.

Geographic area	Number of establishments	Sales ($1,000)	Annual payroll ($1,000)	Paid employees for period including March 12
Kauai County	464	362,491	47,121	5,173
Hanamaulu	7	2,932	640	108
Kalaheo	8	3,815	591	68
Kapaa	108	72,905	8,965	993
Kekaha	4	(D)	(D)	(D)
Lihue	158	155,160	18,116	1,773
Balance of county	179	(D)	(D)	(D)
Maui County	971	920,571	128,253	12,855
Island of Lanai	10	5,260	727	69
Island of Molokai	29	21,436	2,359	247
Kahului	191	294,026	36,963	3,471
Kihei	105	92,034	12,382	1,588
Lahaina	361	277,365	44,865	4,579
Makawao	9	6,046	540	68
Pukalani	14	19,169	2,100	229
Wailuku	132	115,312	14,036	1,207
Balance of county	120	89,923	14,281	1,397

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), table 5.

Table 667.-- RETAIL ESTABLISHMENTS WITHOUT PAYROLL, FOR COUNTIES, ISLANDS, AND SELECTED URBAN PLACES: 1987

[For retail establishments with payroll, see preceding table]

Geographic area 1/	No. of estab.	Sales ($1,000)
State total	3,948	183,020
Hawaii County	481	24,965
Hilo	133	5,315
Kailua	112	7,473
Honolulu County ...	2,896	128,122
Aiea	134	5,449
Honolulu	1,894	92,621
Kailua	127	5,078
Kaneohe	121	4,749
Pearl City	131	4,109
Kauai County	202	10,367
Maui County	369	19,566
Lanai	5	329
Maui	345	18,524
Molokai	19	713

1/ Shown for urban places with 100 establishments or more. For other urban places, see source.

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Nonemployer Statistics Series, West, RC87-N-4 (February 1990), table 4.

Table 668.-- RETAIL ESTABLISHMENTS WITH PAYROLL, BY KIND OF BUSINESS: 1982 AND 1987

[Excludes establishments without payroll. Also excludes establishments operated by the armed forces]

SIC code	Kind of business	Number of establishments		Sales		
		1982	1987	1982 ($1,000)	1987 ($1,000)	Percent change
	Retail trade	6,569	7,204	5,101,671	8,087,398	58.5
52	Building materials and garden supplies	136	149	149,622	230,051	53.8
53	General merchandise ...	160	151	748,493	1,253,965	67.5
54	Food stores	836	921	1,081,175	1,571,829	45.4
55 ex. 554	Automotive dealers	239	281	540,566	1,221,516	126.0
554	Gasoline service stations	389	355	400,141	427,232	6.8
56	Apparel and accessory stores	828	963	379,746	578,467	52.3
57	Furniture and home-furnishings stores ..	365	402	160,828	280,781	74.6
58	Eating and drinking places	1,894	2,209	872,558	1,350,648	54.8
591	Drug and proprietary stores	129	112	337,590	441,584	30.8
59 ex. 591	Miscellaneous retail stores...............	1,593	1,661	522,198	731,325	40.0

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), table 3.

Table 669.-- RETAIL ESTABLISHMENTS WITHOUT PAYROLL, BY KIND OF BUSINESS: 1987

[For retail establishments with payroll, see preceding table]

SIC code	Kind of business	No. of estab.	Sales ($1,000)
	Retail trade	3,948	183,020
52	Building materials, garden supplies	127	3,709
53	General merchandise stores	95	3,866
54	Food stores	370	26,891
55 ex. 554	Automotive dealers	124	10,046
554	Gasoline service stations	37	4,899
56	Apparel and accessory stores	389	16,433
57	Furniture, homefurnishings	274	12,641
58	Eating and drinking places	324	15,454
591	Drug and proprietory stores	15	425
59 ex. 591	Miscellaneous retail stores	2,193	88,656

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Nonemployer Statistics Series, West, RC87-N-4 (February 1990), table 2.

Table 670.-- SHOPPING CENTER CHARACTERISTICS: 1986 AND 1987

Subject	1986	1987
Number of shopping centers	117	123
Total leasable retail area (million square feet)	12.3	12.7
Retail sales in shopping centers (billion dollars)	2.0	2.2
Percent of total nonautomotive retail sales	39	39
Number of adults shopping in centers monthly (1,000)	740	740
State sales tax revenues from shopping centers (million dollars)	82	87
Employment in shopping centers (1,000)	33	34
Percent of total nonagricultural employment	8	8
New center construction starts	None	1
Construction contract value (million dollars)	None	2

Source: International Council of Shopping Centers, The Scope of the Shopping Center Industry in the United States 1988 (New York, 1988), p. 16.

Table 671.-- CHARACTERISTICS OF MAJOR SHOPPING CENTERS: 1989

[Includes all centers on Oahu with more than 200,000 square feet of gross leaseable area and all centers on other islands with more than 150,000 square feet of building area]

Island and name of center	Location	Year opened	Site area (acres)	Gross lease-able area (1,000 square feet)	Parking spaces	Number of stores
Oahu:						
Ala Moana Center ...	Honolulu	1959	50	1,500	7,600	180
Kahala Mall	Honolulu	1970	22	370	1,650	80
Kapolei S.C.	Makakilo	1991	30	510	1,009	(NA)
Moanalua S.C.	Honolulu	1954	15	240	500+	50+
Pearl City S.C.	Pearl City	1967	14	260	824	37
Pearlridge Center ..	Aiea	1972	54	1,400	4,915	150
Royal Hawaiian S.C.	Honolulu	1980	6	280	600	125
Wahiawa S.C.	Wahiawa	1977	1	300	300	50
Waikiki Shopping Plaza	Honolulu	1977	1	300	300	50
Waipahu Town Center	Waipahu	1988	11	244	650+	30
Windward City S.C.	Kaneohe	1956	15	231	785	41
Windward Mall S.C. .	Kaneohe	1982	32	530	2,300	95
Hawaii:						
Kaiko'o Mall S.C. ..	Hilo	1970	14	220	950	33
Prince Kuhio Plaza .	Hilo	1979	(NA)	494	400	(NA)
Maui:						
Kaahumanu Center ...	Kahului	1973	25	300	1,400	60
Lahaina Cannery S.C.	Lahaina	1987	15	169	735	51
Maui Mall	Kahului	1971	25	182	1,400	38
Kauai:						
Kukui Grove Center	Lihue	1982	35	311	1,590	57

NA Not available.

Source: Hawaii Chapter, International Council of Shopping Centers, Hawaii Shopping Center Directory 1989.

Table 672.-- SHOPPING CENTER CHARACTERISTICS: 1988

Characteristic	1988	Percent increase 1987-1988
Number	129	4.9
Gross leasable area (mil. sq. ft.)	13.3	4.2
Retail sales (mil. dol.)	2,267	2.4

Source: National Research Bureau data cited in Statistical Abstract of the United States: 1990, p. 775.

Table 673.-- SHOPPING CENTER FLOOR AREA AND VACANCY RATES, BY ISLANDS: DECEMBER 1989

Island	Area (1,000 sq. feet)	Vacancy rates by type of retail center (percent)					
		Super regional	Regional	Community	Neighborhood	Strip	Specialty
Oahu	9,850.5	1.00	3.83	2.28	3.60	3.27	4.38
Other islands	1/ 3,845.7	...	3.26	1.07	2.42	1.57	5.09

1/ Hawaii, 1,471.5; Maui, 1,412.3; Kauai, 961.9.

Source: Grubb & Ellis/Locations, Inc., Hawaii Real Estate 1990 (1990), p. 20.

Table 674.-- RETAIL SALES AT ALA MOANA CENTER: 1986 TO 1989

Subject	1986	1987	1988	1989
Ala Moana sales (million dollars)	460	541	588	663
Percent of State retail total	5.7	6.6	6.3	6.4

Source: Hawaii Investor, August 1990, p. 50.

Table 675 .-- DUTY-FREE STORE REVENUES: 1981 TO 1989

[In dollars. These sales revenues are not included in the general excise and use tax base data cited elsewhere in this volume]

Year	Revenues	Year	Revenues
1981	145,264,415	1986	270,891,959
1982	145,382,976	1987	369,788,429
1983	150,424,959	1988	445,072,755
1984	170,661,949	1989	451,185,041
1985	180,126,919		

Source: DFS Hawaii, records.

Table 676-- RETAIL SALES AND HOTEL RECEIPTS OF FACILITIES OPERATED FOR THE ARMED FORCES, BY TYPE AND FACILITY: 1986 TO 1988

[In dollars]

Type of facility	1986	1987	1988
Retail sales 1/	454,092,570	465,168,573	558,243,976
Commissaries	139,076,522	145,795,399	159,079,031
Exchanges	240,951,904	247,501,620	326,197,701
Clubs and food services	46,520,878	46,166,032	45,454,512
Package stores	16,268,682	13,207,235	8,495,505
Gas stations	5,025,084	6,110,441	10,022,536
Vending outlets	6,249,500	6,387,846	8,994,691
Hotel receipts 2/	15,839,089	16,901,584	17,887,611
Room	7,481,014	8,027,520	8,324,284
Food	6,367,191	6,923,720	7,599,969
Beverage	1,990,884	1,950,344	1,963,358

1/ Calendar year data. Excludes Hale Koa Hotel.
2/ Hale Koa Hotel receipts for fiscal years ended September 30.
Source: Hawaii State Data Center, annual facilities survey.

Table 677 -- RETAIL SALES AND HOTEL RECEIPTS OF CIVILIAN AND MILITARY ESTABLISHMENTS WITH PAYROLL: 1977 TO 1987

[In millions of dollars]

Control of establishment	Retail sales			Hotel receipts		
	1977	1982	1987	1977	1982	1987
Total	3,455.9	5,506.7	8,552.6	556.1	987.1	1,578.9
Civilian	3,225.3	5,101.7	8,087.4	548.7	973.3	1,562.0
Military	230.6	405.0	465.2	7.4	13.8	16.9
Percent	6.7	7.4	5.4	1.3	1.4	1.1

Source: U.S. Bureau of the Census, Census of Retail Trade and Census of Service Industries, 1982 and 1987; Data Book 1988, table 685.

Table 678.-- MERCHANDISE LINE SALES OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE AND OAHU: 1982

Merchandise line	Number of establishments		Sales ($1,000)	
	State total	Oahu	State total	Oahu
Total retail trade 1/	6,139	4,318	5,101,671	3,898,767
Groceries and other foods	1,127	760	908,817	638,919
Meals and snacks	1,852	1,394	762,547	615,707
Alcoholic drinks	892	650	139,845	108,396
Packaged alcoholic beverages	616	407	150,107	112,975
Cigars, cigarettes, and tobacco	717	482	63,754	49,745
Drugs, health aids, and beauty aids	674	433	265,268	208,242
Men's and boys' clothing exc. footwear	816	500	186,809	146,419
Women's and girls' wear exc. footwear	977	608	358,826	285,930
Footwear exc. infants and toddlers	494	320	67,200	55,486
Sewing, knitting, and needlework goods	178	95	25,803	19,439
Curtains, draperies, and dry goods	223	118	33,762	26,956
Major household appliances	173	104	47,975	34,574
Small electric appliances	202	124	31,128	22,813
TVs and video recorders and tapes	156	104	23,670	18,699
Audio equipment and musical instruments and supplies	270	173	47,674	38,482
Furniture and sleep equipment	185	128	73,472	55,307
Floor coverings	122	70	15,436	10,450
Kitchenware and home furnishings	430	270	54,895	43,674
Jewelry	860	584	165,600	137,562
Optical goods	103	73	10,010	8,550
Sporting goods	313	202	56,792	44,229
Hardware, tools, and plumbing and electrical supplies	253	130	56,361	37,555
Lawn and garden equipment and supplies	311	183	51,630	37,276
Lumber and building materials	152	82	100,242	54,935
Cars, trucks, and powered vehicles	97	69	391,570	320,107
Automotive fuels	425	286	365,151	274,029
Automotive lubricants	428	282	10,627	7,539
Auto tires, batteries, and accessories	518	343	121,699	84,532
All other merchandise	1,220	787	354,915	277,014
Unclassified merchandise	634	434	30,577	24,303
Nonmerchandise receipts	923	676	127,232	96,847
Miscellaneous merchandise	(X)	(X)	2,277	2,076

X Not applicable.

1/ Because some establishments carry more than one merchandise line, the number of establishments for each line will not add to the indicated totals.

Source on next page.

Table 678.-- MERCHANDISE LINE SALES OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE AND OAHU: 1982 -- Con.

Source: U.S. Bureau of the Census, Census of Retail Trade: Merchandise Line Sales, Hawaii, 1982 (unpublished tabulations filed in the Hawaii State Department of Business and Economic Development Library); cited in Hawaii State Department of Planning and Economic Development, Merchandise Line Sales in Hawaii, 1982 (Statistical Report 185, February 24, 1986).

Table 679.-- FOOD STORES AND SUPERMARKETS: 1988-1989

Subject	Amount	Rank 1/
Food stores, 1989:		
Number	1,886	...
Sales (million dollars)	1,371.2	...
Supermarkets, 1988:		
Number	105	43
Sales (million dollars)	785	45
Square feet per store	16,800	49
Sales per capita (dollars)	725	50
Sales per household (dollars)	2,302	45
Employees per store	43.2	32

1/ Among 50 States and D.C.

Source: Progressive Grocer's Marketing Guidebook 1990 (1989), pp. 14, 15, and 632.

Table 680.-- TOBACCO TAX BASE, TOTAL AND PER CAPITA: 1979 TO 1989

[Wholesale value. Excludes sales on military bases. By calendar year in which reported; data accordingly refer in general to tobacco sales for 12-month periods ended November 30]

Year	Tax base ($1,000)	Per capita tax base 1/ (dollars)	Year	Tax base ($1,000)	Per capita tax base 1/ (dollars)
1979	31,020	29.75	1985	47,188	41.12
1980	33,275	31.52	1986	51,796	43.92
1981	35,151	33.01	1987	46,622	38.84
1982	37,338	34.30	1988	58,819	48.34
1983	49,580	44.46	1989	59,836	47.38
1984	48,262	42.39			

1/ Based on de facto population estimates in table 3.

Source: Hawaii State Department of Taxation, "Liquor Tax Base, Collections and Permits; Tobacco Tax Base, Collections and Licenses" (annual release).

Table 681.-- ALCOHOLIC BEVERAGE SALES, BY TYPE: 1988 AND 1989

[Wine gallons of 128 fluid ounces]

Type of beverage	Total sales		Per capita sales 1/	
	1988	1989	1988	1989
All types	35,447,580	35,629,085	29.1	28.2
Distilled spirits	1,769,604	1,718,116	1.5	1.4
Sparkling wine	320,159	320,586	0.3	0.3
Still wine	2,231,709	2,258,481	1.8	1.8
Cooler beverage	460,434	415,989	0.4	0.3
Draft beer	1,608,408	1,520,693	1.3	1.2
Beer other than draft	29,057,266	29,395,220	23.9	23.3

1/ Based on estimated de facto population.

Source: Hawaii State Department of Taxation, Tax Research and Planning, records.

Table 682.-- WHOLESALE TRADE, FOR COUNTIES AND SPECIFIED PLACES: 1987

Geographic area	All wholesalers		Merchant wholesalers	
	Number of establishments	Sales ($1,000)	Number of establishments	Sales ($1,000)
State total	1,998	5,362,490	1,718	3,762,672
Hawaii County	191	347,224	171	269,888
Hilo	116	275,949	102	204,498
Kailua	36	33,323	32	(D)
Honolulu County	1,577	4,501,802	1,340	3,127,947
Aiea	67	172,664	61	144,516
Ewa Beach	13	27,206	12	(D)
Honolulu	1,293	3,816,710	1,095	2,621,357
Kailua	31	21,399	27	16,189
Kaneohe	24	14,315	21	12,606
Pearl City	40	117,864	33	46,125
Waipahu	49	135,071	41	103,325
Kauai County	73	124,882	64	96,221
Lihue	43	85,106	38	(D)
Maui County	157	388,582	143	268,616
Island of Lanai	1	(D)	1	(D)
Island of Molokai ...	5	3,047	4	(D)
Kahului	73	260,544	67	164,568
Wailuku	42	77,007	39	(D)

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, 1987 Census of Wholesale Trade, Hawaii, WC87-A-12 (April 1989), table 5.

Table 683.-- WHOLESALE TRADE, BY TYPE OF OPERATION AND KIND OF BUSINESS: 1987

Type of operation and kind of business	Number of establishments	Sales ($1,000)
Wholesale trade	1,998	5,362,490
Type of operation:		
Merchant wholesalers	1,718	3,762,672
Manufacturers' sales branches and offices	130	1,060,066
Agents, brokers, and commission merchants	150	539,752
Kind of business:		
Motor vehicles and motor vehicle parts and supplies	121	409,040
Furniture and home furnishings	69	105,823
Professional and commercial equipment and supplies	193	427,975
Lumber and other construction materials	82	217,920
Metals and minerals, except petroleum	18	41,947
Electrical goods	116	367,006
Hardware, and plumbing and heating equipment and supplies	93	164,382
Machinery, equipment, and supplies	144	241,390
Miscellaneous durable goods	202	226,496
Paper and paper products	69	203,601
Drugs, drug proprietaries, and druggists' sundries	40	133,740
Apparel, piece goods, and notions	108	146,805
Groceries and related products	388	1,453,873
Farm-product raw materials	10	7,477
Chemicals and allied products	39	105,375
Petroleum and petroleum products	50	468,694
Beer, wines, and distilled alcoholic beverages	41	270,773
Miscellaneous nondurable goods	215	370,173

Source: U.S. Bureau of the Census, 1987 Census of Wholesale Trade, Hawaii, WC87-A-12 (April 1989), table 1.

Table 684.-- CHARACTERISTICS OF WHOLESALE ESTABLISHMENTS, FOR THE STATE, 1982 AND 1987, AND OAHU AND THE NEIGHBOR ISLANDS, 1987

Subject	1982	1987		
		State total	Oahu	Neighbor Islands
Number of establishments	1,810	1,998	1,577	421
Sales ($1,000)	4,084,369	5,362,490	4,501,802	860,688
Annual payroll ($1,000)	287,626	415,114	357,469	57,645
First quarter payroll ($1,000) ...	69,858	100,963	(NA)	(NA)
Paid employees for pay period including March 12 (number)	17,210	20,157	16,907	3,250
Operating expenses ($1,000)	620,882	883,223	(NA)	(NA)
Inventories ($1,000):				
Beginning of year	457,525	472,167	(NA)	(NA)
End of year	440,723	579,212	(NA)	(NA)

NA Not available.

Source: U.S. Bureau of the Census, 1982 Census of Wholesale Trade, Hawaii, WC82-A-12 (September 1984), table 1; 1987 Census of Wholesale Trade, Hawaii, WC87-A-12 (April 1989), tables 1, 3, 8, and 9.

Table 685.-- SERVICE ESTABLISHMENTS, BY PAYROLL STATUS: 1977 TO 1987

[Excludes firms exempt from Federal income tax for all years, hospitals prior to 1987, and most other health services before 1982]

Payroll status	Number of establishments			Receipts (million dollars)		
	1977	1982	1987	1977	1982	1987
All service establishments	8,023	(NA)	30,114	1,276	(NA)	4,902
With payroll	3,306	6,124	7,458	1,216	2,660	4,456
Without payroll	4,717	(NA)	22,656	60	(NA)	446

NA Not available.

Source: U.S. Bureau of the Census, 1977 Census of Service Industries, Hawaii, SC77-A-12 (December 1979), table 1; 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984), table 1; 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), table 1, and Nonemployer Statistics Series, West, SC87-N-4 (March 1990), table 2.

Table 686.-- CHARACTERISTICS OF SERVICE ESTABLISHMENTS WITH PAYROLL, FOR THE STATE, 1982 AND 1987, AND OAHU AND THE NEIGHBOR ISLANDS, 1987

Subject	1982	1987		
		State total	Oahu	Neighbor islands
FIRMS SUBJECT TO FEDERAL INCOME TAX				
Number of establishments	(NA)	7,458	5,704	1,754
Excluding hospitals	6,469	7,456	5,702	1,754
Receipts ($1,000)	(NA)	4,455,953	3,234,314	1,221,639
Excluding hospitals	2,659,651	(D)	(D)	1,221,639
Annual payroll ($1,000)	(NA)	1,499,500	1,124,039	375,461
Excluding hospitals	904,328	(D)	(D)	375,461
First quarter payroll ($1,000)	(NA)	356,723	268,298	88,425
Paid employees 1/	(NA)	91,673	66,533	25,140
Excluding hospitals	71,051	(D)	(D)	25,140
Unincorp. businesses or operations:				
Individual proprietorships	(NA)	2,146	1,578	568
Partnerships	(NA)	452	321	131
FIRMS EXEMPT FROM FEDERAL INCOME TAX				
Number of establishments	(NA)	998	685	313
Excluding hospitals	881	973	672	301
Revenue ($1,000)	(NA)	1,222,359	1,044,911	177,448
Expenses, except hospitals ($1,000)	315,006	464,222	(NA)	(NA)
Annual payroll ($1,000)	(NA)	521,108	444,007	77,101
Excluding hospitals	122,302	176,335	145,635	30,700
First quarter payroll ($1,000)	(NA)	128,303	109,597	18,706
Paid employees 1/	(NA)	28,541	23,594	4,947
Excluding hospitals	12,442	13,811	11,186	2,625

D Withheld to avoid disclosing data for individual companies.

NA Not available.

1/ For pay period including March 12.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a, 1b, 3a, 3b, 8a, 8b, 9a, and 9b.

Table 687.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, FOR COUNTIES AND SELECTED URBAN PLACES: 1987

Geographic area	Number of establishments		Receipts ($1,000)	
	All services	Hotels 1/	All services	Hotels 1/
State total	7,458	237	4,455,953	1,562,043
Hawaii County	736	35	382,211	191,918
Hilo	388	9	131,071	12,539
Kailua	170	13	85,259	46,113
Honolulu County	5,704	130	3,234,314	868,888
Aiea	188	3	70,268	2,575
Ewa Beach	18	-	3,838	-
Honolulu	4,529	118	2,848,869	828,367
Kailua	242	-	57,539	-
Kaneohe	143	1	36,243	(D)
Mililani Town	39	-	12,131	-
Pearl City	144	-	45,720	-
Wahiawa	96	1	23,833	(D)
Waianae	24	1	10,155	(D)
Waimanalo	13	-	10,649	-
Waipahu	116	-	26,747	-
Kauai County	293	27	186,636	98,474
Kapaa	56	9	28,560	20,513
Lihue	129	8	69,391	10,311
Maui County	725	45	652,792	402,763
Island of Lanai ...	3	-	(D)	-
Island of Molokai .	20	2	17,641	(D)
Kahului	171	3	110,323	(D)
Kihei	66	7	16,496	8,064
Lahaina	116	17	140,715	102,114
Pukalani	18	-	2,674	-
Wailuku	237	1	67,673	(D)

D Withheld to avoid disclosing data for individual companies.

1/ Including motels and other lodging places (SIC 70), but excluding condominium apartments in transient use.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), table 5.

Table 688.-- SERVICE ESTABLISHMENTS WITHOUT PAYROLL, FOR COUNTIES, ISLANDS, AND SELECTED URBAN PLACES: 1987

[Excludes establishments exempt from Federal income tax. For service establishments with payroll, see preceding table]

Geographic area 1/	No. of estab.	Receipts ($1,000)	Geographic area 1/	No. of estab.	Receipts ($1,000)
State total	22,656	445,628	Kauai County	1,022	17,390
Hawaii County	2,945	45,198	Maui County	2,636	51,438
Hilo	870	13,354	Lanai	10	57
Kailua	728	12,807	Maui	2,528	50,067
			Molokai	98	1,314
Honolulu County ...	16,053	331,602			
Aiea	632	13,834			
Honolulu	9,975	234,300			
Kailua	1,086	19,060			
Kaneohe	754	11,036			
Pearl City	611	10,206			
Waipahu	578	8,281			

1/ Shown for urban places with 500 establishments or more. For other urban places, see source.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries Nonemployer Statistics Series, West, SC87-N-4 (March 1990), table 4.

Table 689.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, BY KIND OF BUSINESS OR OPERATION: 1982 AND 1987

1972 SIC code	Kind of business or operation	Number of establishments		Receipts		
		1987	1982	1987 ($1,000)	1982 ($1,000)	Percent change
	Total	7,456	6,469	(D)	2,659,651	(D)
70	Hotels, motels, other lodging	237	213	1,562,043	973,328	60.5
72	Personal services	727	704	(D)	100,785	(D)
73	Business services	1,435	1,097	548,807	313,686	75.0
75	Automotive repair, services, & parking	653	615	416,441	249,342	67.0
76	Miscellaneous repair services	255	250	72,490	47,779	51.7
78, 79	Amusement & recreation services, including motion pictures.....	429	346	(D)	128,452	(D)
80, ex. 806	Health services, except hospitals ..	1,979	1,711	(D)	420,211	(D)
81	Legal services	721	672	315,500	173,129	82.2
823, 4, 9	Selected educational services	62	63	11,829	8,032	47.3
83	Social services	90	69	19,319	6,401	201.8
891	Engineering, architectural, surveying services	409	350	281,543	158,104	78.1
893	Accounting, auditing, bookkeeping services	386	325	111,178	75,046	48.1
892, [illegible]	Other services	73	(NC)	11,001	(NC)	(X)

D Withheld to avoid disclosing data for individual companies.

NC Not comparable.

X Not applicable.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), table 3.

Table 690.-- SERVICE ESTABLISHMENTS WITHOUT PAYROLL, BY KIND OF BUSINESS: 1987

[Excludes establishments exempt from Federal income tax. For service establishments with payroll, see preceding table]

SIC code	Kind of business	No. of estab.	Receipts ($1,000)
	Total	22,656	445,628
70, ex. 704	Hotels, rooming houses, camps, other lodging	346	7,015
7011	Hotels and motels	98	2,555
702.3	Other lodging places	248	4,460
72	Personal services	4,166	55,433
73	Business services	6,106	106,400
75	Automotive repair, services, and parking	861	26,636
76	Miscellaneous repair services	782	18,588
78, 79, 84	Amusement and recreation services	2,321	47,495
78	Motion pictures	156	6,070
80	Health services	1,580	48,782
81	Legal services	548	19,421
823, 4, 9	Selected educational services	959	8,512
83	Social services	815	5,563
835	Child day care services	614	2,812
87, ex. 873	Engineering, accounting, research, management	3,427	76,668
89	Services, n.e.c.	745	25,115

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Nonemployer Statistics Series, West, SC87-N-4 (March 1990), table 2.

Table 691.-- HOTELS, MOTELS, AND OTHER LODGING PLACES: 1987

[Includes only establishments with payroll. Excludes condominium units in rental pools for transient use]

Subject	Number of establishments	Receipts ($1,000)	Annual payroll ($1,000)	Paid employees, pay period including March 12
SUBJECT TO FEDERAL INCOME TAX				
Hotels, motels, other lodging .	237	1,562,043	436,081	31,600
Hotels	196	1,539,940	430,648	31,099
25 guestrooms or more	175	1,536,711	429,804	30,995
Less than 25 guestrooms	21	3,229	844	104
Motels, motor hotels, tourist courts	33	20,893	5,085	462
Other lodging places 1/	8	1,210	348	39
EXEMPT FROM FEDERAL INCOME TAX				
Camps and membership lodging 2/	3	(D)	(D)	(D)

1/ Rooming and boarding houses, 6 establishments; camps and recreational vehicle parks, 2.

2/ Sporting and recreational camps, 2; organization hotels and lodging houses on membership basis, 1.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a and 1b.

Table 692.-- VISITOR ACCOMMODATIONS, BY TYPE, 1979 TO 1989, AND BY ISLANDS, 1989

[As of February]

Year and island	Properties			Units		
	Total	Hotels 1/	Condo-miniums 2/	Total	Hotels 1/	Condo-miniums 2/
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
1989	453	197	256	68,034	48,894	19,140
ISLANDS: 1989						
Oahu	157	104	53	36,467	30,548	5,919
Waikiki 3/	129	83	46	32,808	27,604	5,204
Rest of Oahu	28	21	7	3,659	2,944	715
Other islands	296	93	203	31,567	18,346	13,221
Hawaii	73	31	42	8,161	6,143	2,018
Maui	143	31	112	15,439	7,503	7,936
Lanai	1	1	-	10	10	-
Molokai	7	2	5	559	326	233
Kauai	72	28	44	7,398	4,364	3,034

NA Not available.

1/ Hotels, apartment hotels, and cottages. Excludes condominium properties. In 1989, there were 155 hotels (with 47,474 units), 31 apartment hotels (with 1,138 units), and 11 cottage hotels (with 282 units).

2/ Condominium accommodations in rental pools for transient use.

3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal.

Source: Hawaii Visitors Bureau, Visitor Plant Inventory, 1979 to 1989.

Table 693.-- HOTEL ROOMS, OCCUPANCY RATES, AND DAILY ROOM AND GUEST RATES: 1979 TO 1989

[Includes condominium units in rental pools for transient occupancy]

Year	Hotel units, February			Percent occu-pied 1/	Daily rates 1/ (dollars)		Guests per room 1/
	State total	Oahu	Other islands		Per room	Per guest	
1979	49,832	30,065	19,767	73.8	44.41	22.70	1.96
1980	54,246	34,334	19,912	69.3	47.28	24.40	1.94
1981	56,769	33,967	22,802	68.2	49.73	25.70	1.94
1982	57,968	33,492	24,476	70.4	51.78	26.44	1.96
1983	58,765	34,354	24,411	69.7	54.78	27.71	1.98
1984	62,448	36,848	25,600	76.0	59.25	29.59	2.00
1985	65,919	38,600	27,319	76.1	68.84	34.39	2.00
1986	66,308	39,010	27,298	81.7	73.20	36.80	1.99
1987	65,318	38,185	27,133	81.1	80.09	40.23	1.99
1988	69,012	37,841	31,171	78.5	87.94	44.22	1.99
1989	68,034	36,467	31,567	79.0	95.83	47.93	2.00

1/ Annual averages.

Source: Hawaii Visitors Bureau, Visitor Plant Inventory (annual); Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (December issues).

Table 694.-- HOTEL OCCUPANCY AND ROOM RATES, FOR THE UNITED STATES AND HONOLULU: 1988 AND 1989

Year	Occupancy (percent)			Average daily rate (dollars)		
	United States	Honolulu	Rank 1/	United States	Honolulu	Rank 1/
1988	63.7	85.4	1	70.03	75.16	11
1989	64.6	86.4	1	72.69	84.48	10

1/ Honolulu's rank among 52 cities.

Source: Pannell Kerr Forster, Trends in the Hotel Industry, United States, Worldwide (March 1990).

Table 695.-- HOTEL ROOMS, OCCUPANCY AND ROOM RATES, AND FOOD AND BEVERAGE SALES, BY GEOGRAPHIC AREAS: 1989

[Includes condominium units in rental pools for transient occupancy]

Geographic area	Hotel and condo units 1/	Percent occu- pied	Average daily room rate (dollars)	Average daily guest rate (dollars)	Average daily sales per room		Average food sales per cover (dollars)
					Food (dollars)	Beverage (dollars)	
State .	68,034	78.98	95.83	47.93	20.37	6.25	13.17
Oahu	36,467	86.44	84.48	43.66	17.20	4.77	12.45
Waikiki ..	32,808	86.70	(NA)	(NA)	(NA)	(NA)	(NA)
Other Oahu	3,659	84.16	68.41	41.98	15.27	4.74	10.42
Hawaii	8,161	60.84	121.27	58.33	28.49	10.00	15.53
Hilo	1,336	54.72	50.11	27.15	12.55	4.18	10.00
Kona	6,825	61.98	132.97	62.79	30.64	10.78	16.02
Maui	15,439	69.23	133.65	63.11	26.69	9.21	13.86
West Maui	9,274	71.21	142.05	66.65	24.74	9.18	14.17
Other	6,165	62.96	103.72	50.13	35.12	9.39	13.01
Kauai	7,398	71.32	92.77	41.19	20.46	6.38	12.32
East	5,153	67.42	77.74	36.34	19.79	6.35	12.42
South	2,245	79.17	118.55	48.46	21.50	6.42	12.18
Molokai	559	45.44	66.38	31.41	22.96	7.33	11.88
All Neighbor Islands ..	31,567	66.7	(NA)	(NA)	(NA)	(NA)	(NA)

NA Not available.

1/ As of February.

Source: Hawaii Visitors Bureau, *1989 Visitor Plant Inventory*, p. 4; Pannell Kerr Forster, *Trends in the Hotel Industry, Hawaii*, December 1989, and records.

Table 696.-- GENERAL EXCISE TAX BASE FOR RENTALS: 1979 TO 1989

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Total	Hotel rentals	All other rentals 2/
1979	1,699,947	672,098	1,027,848
1980	1,820,715	708,620	1,112,095
1981	2,040,505	770,705	1,269,800
1982	2,265,287	844,926	1,420,361
1983	2,470,820	876,227	1,594,593
1984	2,743,855	984,518	1,759,337
1985	3,037,254	1,122,268	1,914,986
1986	3,278,450	1,212,782	2,065,668
1987 3/	3,443,271	1,369,401	2,073,870
1988 3/	3,715,546	1,408,891	2,306,655
1989 3/	4,108,740	1,505,071	2,603,669

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Includes residential, office, automobile, and equipment rentals, and land leases.

3/ Data exclude tax base for unallocated collections, distributed before 1987.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 697.-- TRAVEL AGENCIES, TOUR OPERATORS, AND RELATED SERVICES (SIC 4722), BY COUNTIES: 1987

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Establishments with payroll	491	390	31	21	49
Employees, week including March 12	4,588	3,998	225	365	
Annual payroll ($1,000)	67,335	60,196	2,210	4,929	

Source: U.S. Bureau of the Census, County Business Patterns 1987, Hawaii, CBP-87-13 (November 1989).

Table 698.--FUNERAL SERVICE AND CREMATORIES (SIC 726): 1977 TO 1987

[Data limited to establishments with payroll. For earlier years, 1939-1972, see Data Book 1984, table 704]

Subject	1977	1982	1987
Number of establishments	23	18	23
Receipts ($1,000)	5,556	6,049	15,119
Deaths occurring in Hawaii	4,724	5,495	6,490
Receipts per death (dollars)	1,176	1,101	2,330

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984), table 2a; 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), table 3a. Deaths from Hawaii State Department of Health, records.

Table 699.-- MOTION PICTURE SERVICES: 1963 TO 1987

[Data limited to establishments with payroll]

Subject and year	Number of establishments	Receipts ($1,000)	Annual payroll ($1,000)	Paid employees, week inc. Mar. 12
Motion picture production, distribution, and services:				
1963	4	(D)	(D)	(D)
1967	4	(D)	(D)	(D)
1972	7	(D)	(D)	(D)
1977	11	926	174	31
1982	16	4,203	1,147	74
1987	25	10,177	2,394	136
Motion picture theaters:				
1963	74	(D)	(D)	(D)
1967	56	(D)	(D)	(D)
1972	59	11,982	2,305	762
1977 1/	50	17,444	(D)	(D)
1982	2/ 36	21,329	3,195	519
1987	3/ 35	(D)	(D)	(D)
Video tape rental:				
1987 4/	78	12,319	2,456	376

D Withheld to avoid disclosing data for individual companies.
1/ Data include 3 establishments without payroll.
2/ Includes 3 drive-in theaters.
3/ Includes 2 drive-in theaters.
4/ Earliest year available.

Source: U.S. Bureau of the Census, *1963 Census of Business, Selected Services, Hawaii*, BC63-SA13 (1963); *1972 Census of Selected Service Industries, Hawaii*, SC72-A-12 (July 1974); *1977 Census of Service Industries, Hawaii*, SC77-A-12 (December 1979); *1982 Census of Service Industries, Hawaii*, SC82-A-12 (September 1984); *1982 Census of Service Industries, Motion Picture Industry*, SC82-I-4 (December 1985); and *1987 Census of Service Industries, Hawaii*, SC87-A-12 (July 1989).

Table 700.-- MOTION PICTURE AND TELEVISION PRODUCTION: 1984 TO 1989

Subject	1984	1985	1986	1987	1988	1989
Number of features and programs filmed	76	66	81	109	182	173
Feature films for theater viewing	2	1	3	4	2	5
Feature films for TV viewing	2	4	2	2	1	7
Television specials and series 1/	72	61	76	103	179	161
Gross budgets (millions of dollars) 2/	77.1	80.6	63.6	232.6	53.8	101.4
Feature films and television specials and series	53.4	60.5	52.9	209.2	36.7	78.9
Television commercials and related advertising	23.7	20.1	10.7	23.4	17.1	22.5
Expenditures in Hawaii 3/ (millions of dollars)	38.2	40.6	35.3	50.5	24.9	61.6
Tax revenues generated (millions of dollars)	3.54	3.8	3.1	4.5	2.24	9.2
Spending effect on economy (millions of dollars)	86.9	90	78	114.8	56.5	120.0

1/ Each program in a series counted separately.
2/ Includes post-production costs out of the State.
3/ For all productions, including commercials, stills, etc.
Source: Hawaii State Department of Business and Economic Development, Film Industry Branch, records.

Section 24

FOREIGN AND INTERSTATE COMMERCE

This section includes data on the flow of goods, services, and capital between Hawaii and the rest of the world, with particular emphasis on trade and investment involving foreign countries.

Imports to Hawaii from foreign nations rose from $1.2 billion in 1978 to $1.8 billion in 1988. Exports to foreign countries amounted to only $138 million in 1978, but by 1988 reached $573 million. These figures, it should be noted, refer to merchandise imports and exports through the Honolulu Customs District. They do not necessarily represent exports of commodities originating in Hawaii, nor imports for direct consumption within the State. Adjusted for actual origin and destination, Hawaii imports in 1988 were $1.1 billion; exports, $131 million.

Trade with the Mainland United States has similarly risen in the past decade. Merchandise received from the Mainland increased from $3.1 billion in 1978 to $7.5 billion in 1988. Estimates of the value of merchandise shipped to the Mainland are no longer available.

Among the foreign nations, Hawaii's leading trading partner in 1988 was Japan for both imports and exports. Imports for consumption from Japan amounted to $482 million, or 26 percent of the total, while exports to Japan reached $255 million or 44 percent of all foreign exports. Almost 45 percent of all imports for consumption were petroleum and natural gas and integrated circuits.

Honolulu Foreign Trade Zone No. 9 handled merchandise valued at $63 million in fiscal 1989. Merchandise handled by Subzone No. 9A, the PRI refinery, was valued at $978 million, almost all of it in petroleum and petroleum products. The other three subzones accounted for a combined total of $371 million.

Foreign-owned businesses in Hawaii had property, plant, and equipment with a gross book value of $3.5 billion in 1987, owned 57,000 acres, and employed 27,300 persons. Foreign investments in Hawaii between 1959 and 1989 totaled $8.7 billion, four-fifths of it Japanese. During the 15-month period ended in March 1988, Japanese investors spent $890 million on Hawaiian real estate.

Sources for statistics on interstate and foreign commerce include the U.S. Bureau of the Census and Bureau of Economic Analysis, Foreign Trade Zone No. 9 and its four subzones, and the DBED Trade and Industry Development Branch. Further information is found in waterborne cargo data compiled by the Army Corps of Engineers and cited in Section 18.

Comparable data for the nation as a whole appear in Section 29 of Statistical Abstract of the United States: 1990. Long-term Island trends are summarized in Historical Statistics of Hawaii, Section 21.

Table 701.-- INTERSTATE AND FOREIGN TRADE: 1970 TO 1988

[Merchandise imports and exports, foreign and domestic, in millions of dollars. For 1958-1969, see Data Book 1987, table 713]

Year	Merchandise imports					Merchandise exports, total 1/
		Domestic				
	Total	Total	Waterborne	Air 1/	Foreign	
1970	1,431.5	1,256.8	1,172.5	84.3	174.7	349.4
1971	1,258.1	1,034.6	888.7	145.9	223.6	380.8
1972	1,462.5	1,218.8	1,082.2	136.6	243.7	365.0
1973	1,892.9	1,578.0	1,460.1	117.9	314.9	493.9
1974	2,510.0	1,962.9	1,825.0	137.8	547.2	1,017.9
1975	2,843.0	2,044.8	1,872.8	172.0	798.2	844.7
1976	3,310.8	2,488.8	2,269.2	219.5	822.0	903.6
1977	3,792.1	2,885.1	2,648.3	236.8	907.1	938.4
1978	4,146.1	3,140.9	2,890.0	251.0	1,005.2	1,044.7
1979	5,001.2	3,897.0	3,636.9	260.1	1,104.3	1,182.3
1980	6,239.4	4,779.7	4,577.9	201.9	1,459.7	1,569.2
1981	6,241.3	4,716.1	4,500.2	215.9	1,525.2	1,289.2
1982	5,933.8	4,700.3	4,478.8	221.5	1,233.5	1,333.4
1983	6,461.8	5,096.3	4,856.6	239.7	1,365.5	1,440.7
1984	6,568.0	5,309.4	5,047.9	261.5	1,258.6	1,419.8
1985	6,981.2	5,564.2	5,290.2	274.0	1,417.0	1,336.3
1986	7,718.5	6,120.8	5,819.8	301.0	1,597.7	1,389.8
1987	8,604.6	6,685.8	6,376.0	309.8	1,918.8	1,445.3
1988	9,908.0	7,510.3	7,173.4	336.9	2,397.7	1,503.2

1/ Not available separately for foreign and domestic exports.

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958 to 1985; Summary Estimates: 1986, 1987, and 1988 (June 1989).

Table 702.-- FOREIGN TRADE THROUGH THE HONOLULU CUSTOMS DISTRICT: 1984 TO 1988

[Value, in millions of dollars, of U.S. imports and exports entered or exported through the Honolulu Customs District. The data may include imports intended for consumption on the Mainland and exports originated on the Mainland]

Subject	1984	1985	1986	1987	1988
General imports 1/	1,614.2	1,756.3	1,556.9	1,770.1	1,839.6
Imports for consumption 1/ ..	1,397.9	1,553.1	1,425.4	1,558.6	1,559.1
Exports of foreign and domestic merchandise 2/ ...	316.9	388.8	231.1	392.8	572.6

1/ Customs value basis. Excludes vessels under their own power or afloat and shipments valued under $251.

2/ Totals are on f.a.s. (free alongside ship) basis.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, FT990, cumulative totals in December issues.

Table 703.-- FOREIGN TRADE THROUGH THE HONOLULU CUSTOMS DISTRICT, BY METHOD OF TRANSPORTATION: 1988

[See headnote to preceding table]

Category	Value 1/ (million dollars)			Shipping weight (million lb.)	
	Total 2/	Vessel	Air	Vessel	Air
General imports ...	1,839.6	984.0	993.6	8,589.7	32.4
Exports	572.6	106.6	239.9	1,154.0	39.4

1/ Customs value basis for imports; f.a.s. (free alongside ship) value basis for exports. See source for definitions.

2/ Includes categories not tabulated by method of transportation, not shown separately.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, FT 990, December 1988, tables A-5 and B-9.

Table 704.-- IMPORTS AND EXPORTS, BY CUSTOMS DISTRICT AND STATE OF ORIGIN AND DESTINATION: 1987 AND 1988

[In millions of dollars]

Subject	1987	1988
General imports (c.i.f. value basis):		
Entered through Honolulu Customs District	1,863.6	1,937.8
Destined for Hawaii 1/	801.6	1,117.6
Exports (f.a.s. value basis):		
Cleared through Honolulu Customs District	392.8	572.6
Originated in Hawaii 1/	151.7	130.7

1/ Includes commodities through customs districts other than Honolulu. Not available before 1987.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, December 1987, FT 990 (June 1988), tables A-11, B-6, and C-10; Highlights of U.S. Export and Import Trade, December 1988, FT 990 (June 1989), tables A-5 and B-9; and records.

Table 705.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, BY REGION OF ORIGIN OR DESTINATION: 1987 AND 1988

[In dollars. Includes all foreign trade through the Honolulu Customs District, and thus may include imports intended for consumption in other States or exports originated in other States. Excludes imports intended for consumption in Hawaii but entering through other customs districts, and exports originated in Hawaii but shipped through other customs districts]

Region	Imports for consumption		Exports of domestic merchandise	
	1987	1988	1987	1988
All regions	1,558,625,780	1,839,632,442	392,820,689	581,122,182
Africa	5,518,006	426,432	4,870	166,451
Asia	1,376,898,490	1,426,600,773	244,820,744	340,739,122
Australia and Oceania ...	91,661,864	128,063,148	115,769,567	218,213,347
Europe	50,938,574	252,321,619	7,377,732	10,386,456
Latin America 1/	3,804,159	29,588,536	4,324,136	11,088,675
North America 2/	29,804,687	2,631,934	20,523,640	528,131

1/ Includes Central and South America, Bermuda, and the Caribbean.

2/ Excluding Latin America.

Source: Hawaii State Department of Business, Economic Development & Tourism, Trade and Industry Development Branch, Hawaii's Foreign Trade, A Statistical Digest (annual). Compiled from U.S. Bureau of the Census tapes.

Table 706.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, TOTAL AND BY LEADING COUNTRIES OF ORIGIN OR DESTINATION: 1988

[See headnote to preceding table]

Country	Total	Imports for consumption	Exports of domestic merchandise
All countries	2,420,754,624	1,839,632,442	581,122,182
Japan	737,310,928	482,205,755	255,105,173
Singapore	268,510,004	233,144,502	35,365,502
Australia	242,716,402	102,978,024	139,738,378
Indonesia	195,615,850	193,804,608	1,811,242
Taiwan	191,703,164	173,655,721	18,047,443
Philippines	123,494,003	120,110,952	3,383,051
Korea, Republic of	93,310,625	78,154,340	15,156,285
France	87,345,957	86,872,043	473,914
Italy	71,357,508	71,273,248	84,260
New Zealand	58,623,001	23,010,806	35,612,195
China, People's Republic of .	54,660,589	53,406,493	1,254,096
Hong Kong	47,422,954	38,680,487	8,742,467
Canada	35,018,897	26,020,524	8,998,373
Switzerland	33,114,662	33,069,620	45,042
Malaysia	25,566,362	25,429,244	137,118
United Kingdom of Great Britain & Northern Ireland	25,248,975	22,710,255	2,538,720
Marshall Islands	24,431,956	90,851	24,341,105
Germany, Federal Republic of	11,511,594	11,481,415	30,179
Netherlands	9,742,299	4,766,106	4,976,193
Papua New Guinea	9,411,462	10,433	9,401,029
Thailand	9,380,628	7,868,569	1,512,059
Spain	7,501,195	7,384,479	116,716
Saudi Arabia	7,381,349	7,381,349	-
Nepal	5,515,909	5,515,909	-
Denmark	4,775,617	4,775,617	-

Source: Hawaii State Department of Business, Economic Development, & Tourism, Trade and Industry Development Branch, *Hawaii's Foreign Trade 1988, A Statistical Digest* (August 1990), table 2. Compiled from U.S. Bureau of the Census tapes.

Table 707.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, BY COMMODITY CLASSIFICATION: 1988

[See headnote to table 705]

Commodity	Imports for consumption	Exports of domestic mdse.
All commodities	1,839,632,442	581,122,182
Animal and vegetable products	146,817,835	63,427,692
Wood and paper; printed matter	28,560,710	11,819,925
Textile fibers and products	52,117,466	3,088,094
Chemicals and related products	403,582,675	39,932,293
Petroleum, natural gas	371,625,035	26,341,010
Other chemicals and related products	31,957,640	13,591,283
Nonmetallic minerals and products	34,321,426	2,482,298
Metals, machinery and transp. equip.	865,168,828	388,387,953
Integrated circuits	459,612,484	(1/)
Motor vehicles	280,204,601	(1/)
Aircraft and spacecraft	(1/)	279,646,133
Other metals, machinery and transp. equip.	125,351,743	108,741,820
Specified miscellaneous products	288,171,500	63,293,437
Special classification provisions	20,892,002	8,690,490

1/ Included with "other metals, machinery and transportation equipment."

Source: Hawaii State Department of Business, Economic Development & Tourism, Trade and Industry Development Branch, *Hawaii's Foreign Trade 1988, A Statistical Digest* (August 1990), tables 7, 8, 9, 20, 21, 23 and 26.

Table 708.-- FOREIGN-TRADE ZONE AND SUBZONE OPERATIONS: 1986 TO 1989

[Years ended September 30]

Subject	1986	1987	1988	1989
Zone No. 9:				
Firms using zone	302	400	386	393
User employment at zone 1/	200	299	216	223
Value of merchandise ($1,000):				
In/out	53,890	72,951	57,241	62,747
Exports	6,416	10,070	12,026	9,086
Revenue ($1,000)	1,283	1,220	1,247	1,508
Expenditures ($1,000)	1,102	1,052	1,119	1,183
Subzone No. 9-A:				
User employment at subzone 1/	210	213	233	243
Quantity (1,000 short tons):				
Merchandise, in/out	7,717.5	8,107.9	8,581.0	9,349.8
Exports	1,560.0	1,825.0	1,782.7	1,865.0
Value (million dollars):				
Merchandise, in/out	922.3	861.0	865.9	978.1
Exports	198.4	196.2	186.0	199.8
Subzone No. 9-B:				
User employment at subzone 1/	6	7	17	19
Value ($1,000):				
Merchandise, in/out	448	1,556	4,724	6,434
Exports	220	778	2,372	3,210
Subzone No. 9-C:				
User employment at subzone 1/	2,400	2,000	2,071	1,520
Value (million dollars):				
Merchandise, in/out	300.8	267.3	273.7	282.1
Exports	16.2	16.0	16.5	12.7
Subzone No. 9-D:				
User employment at subzone	1,000	1,250	1,250	1,250
Value ($1,000):				
Merchandise, in/out	23,646	73,988	92,444	82,326
Exports	124	1,756	3,149	2,434

1/ For firms occupying facilities on a continuing basis only.

Source: Hawaii State Department of Business and Economic Development, Foreign-Trade Zone No. 9, annual reports and records.

Table 709.-- EMPLOYMENT AND PROPERTY, PLANT AND EQUIPMENT OF HAWAII AFFILIATES OF FOREIGN COMPANIES: 1986 AND 1987

[Data for Hawaii nonbank affiliates of U.S. business enterprises owned 10 percent or more, directly or indirectly, by a foreign person]

Subject	1986	1987
Employment, by country of ultimate beneficial owner (1,000) ..	18.4	27.3
Canada	.7	.7
United Kingdom	1.3	.4
Other Europe	.5	.6
Latin America, Africa, Middle East	2.1	2.8
Asia and Pacific	13.7	22.8
Australia	1.1	1.4
Japan	10.9	20.6
Property, plant, and equipment (million dollars)	2,013	3,474
Commercial	...	2,848
Other	...	626
Land owned (1,000 acres)	52	57

Source: U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. Affiliates of Foreign Companies: 1987 Benchmark Survey Results," Survey of Current Business, July 1989, pp. 116-139, and "U.S. Affiliates of Foreign Companies: Operations in 1988," Survey of Current Business, July 1990, pp. 127-144. The 1987 estimates, except for acreage, are revisions.

Table 710.-- EMPLOYMENT AND SHIPMENTS RELATED TO MANUFACTURED EXPORTS: 1985 AND 1986

Subject	1985	1986
Employment related to manufactured exports	5,300	5,300
Percent of civilian employment	1.1	1.1
Manufacturing industries	800	700
Direct export related	300	200
Supporting exports	500	500
Nonmanufacturing industries	4,500	4,600
Trade	3,500	3,600
Other	1,000	1,000
Value of export related manufacturers' shipments 1/	469.9	317.9
Percent of total manufacturers' shipments	13.5	10.3
Direct exports 1/	352.4	214.3
Supporting exports 1/	117.5	103.6

1/ Million dollars.

Source: U.S. Bureau of the Census, "Exports from Manufacturing Establishments: 1985 and 1986," Manufacturing Analytical Report Series, AR85-1 (1989), pp. 20-23.

Table 711.-- JAPANESE OWNERSHIP OF HOTELS, BY ISLANDS: FEBRUARY 1989

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Number of hotels	44	6	4	-	1	31	2
Number of units	20,525	1,794	2,331	-	292	15,167	941
Percent 1/	30.2	22.0	17.4	0	52.2	41.6	12.7

1/ Percent of all units, including condominium accommodations in rental pools for transient use.

Source: DBED tabulation based mostly on Hawaii Visitors Bureau, 1989, Visitor Plant Inventory.

Table 712.-- AGRICULTURAL LANDHOLDINGS OF FOREIGN OWNERS: DECEMBER 31, 1988 AND 1989

Subject	1988	1989
Parcels owned by foreigners	50	70
Individuals	15	15
Organizations	35	55
Acres owned by foreigners	53,895	106,559
Percent of all privately owned agricultural land 1/	2.7	5.3
Individuals	548	548
Organizations	53,347	106,011
Value of foreign-owned agricultural land ($1,000):		
At time of acquisition	71,162	329,458
Adjusted current value	57,702	325,257

1/ The 1989 percent for Hawaii ranked second among the 50 States, exceeded only by Maine (11.0 percent), and well above the national percentage (1.0).

Source: U.S. Department of Agriculture, Economic Research Service, Foreign Ownership of U.S. Agricultural Land Through December 31, 1988 (Staff Report No. AGES 89-14, April 1989), pp. 5, 8, and 11, and Foreign Ownership of U.S. Agricultural Land Through December 31, 1989 (Staff Report No. AGES 9026, May 1990), pp. 6, 9, and 13.

Table 713.-- FOREIGN INVESTMENTS IN HAWAII, TOTAL AND JAPANESE: PRE-1970 TO 1989

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Year	Total foreign investments	Investments by Japanese
Total completed	8,689,581	7,098,074
1970 and earlier years	48,770	44,970
1971-1975	452,069	327,869
1976	120,740	55,940
1977	32,200	17,800
1978	44,500	13,500
1979	297,470	165,250
1980	124,485	80,100
1981	108,775	70,800
1982	629,880	489,880
1983	141,176	134,900
1984	221,100	130,500
1985	140,224	121,154
1986	1,151,354	1,107,854
1987	1,306,025	1,107,025
1988	1,886,663	1,747,682
1989	1,984,150	1,482,850
Future investments	1,606,200	1,271,200

Source follows table 688.

Table 714.-- FOREIGN INVESTMENTS IN HAWAII, BY COUNTRY OF INVESTOR: PRE-1970 TO 1989

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Country of investor	Pre-1970 through 1989	1987	1988	1989
All countries	8,689,581	1,306,025	1,886,663	1,984,150
Australia	636,381	57,900	68,581	400,000
Bermuda	500	-	-	(NA)
British West Indies ...	575	-	-	-
Canada	179,570	2,700	(NA)	22,200
Cayman Islands	8,500	(NA)	(NA)	-
France	19,900	-	-	4,000
Hong Kong	291,895	(NA)	60,000	(NA)
Indonesia	148,600	82,000	-	66,600
Japan	7,098,074	1,107,025	1,747,682	1,482,850
Korea, Republic of	11,550	(NA)	-	-
Netherlands	19,600	3,400	-	-
Netherlands Antilles ..	17,735	-	-	-
New Zealand	38,400	23,000	10,400	-
Singapore	(NA)	-	-	-
Switzerland	(NA)	(NA)	-	(NA)
Taiwan	22,000	-	-	8,500
United Arab Emirates ..	(NA)	-	-	-
United Kingdom	193,801	30,000	(NA)	(NA)
Vanuatu	2,500	-	-	-

NA Not available.
Source follows table 715.

Table 715.-- FOREIGN INVESTMENTS IN HAWAII, BY TYPE OF INVESTMENT: PRE-1970 TO 1989

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Type of investment	Pre-1970 through 1989		All countries		
	All countries	Japanese investments	1987	1988	1989
All types	8,689,581	7,098,074	1,306,025	1,886,663	1,984,150
Agriculture...........	46,200	7,400	1,600	11,000	2,000
Banks	28,801	17,001	-	382	2,900
Condominiums	751,550	501,450	90,800	136,550	23,750
Golf courses	114,550	114,550	-	5,250	-
Hotels	3,483,801	3,238,620	659,370	921,031	319,500
Manufacturing	444,330	32,830	23,500	(NA)	400,000
Other real estate	3,347,830	2,905,125	487,585	756,500	1,152,000
Restaurants	44,245	40,520	5,770	4,200	(NA)
Retailing, wholesaling	149,029	138,804	(NA)	4,350	79,000
Science, education ...	87,201	7,500	33,400	-	(NA)
Miscellaneous	192,044	94,274	4,000	47,400	5,000

NA Not available.

Source: Hawaii State Department of Business, Economic Development & Tourism, Trade and Industry Development Branch, A Listing of Foreign Investments in Hawaii, December 31, 1989, pp. 95-97.

Table 716.-- JAPANESE INVESTMENT IN HAWAII REAL ESTATE: 1986 TO 1989

Year and category	Million dollars
1986, total	1,200
1987, total	1,400
1989, total	1,870
1989, total	2,786.2
Hotels and resorts	1,257.3
Office buildings, commercial property	417.0
Businesses	157.5
Acreage, miscellaneous	794.2
Residential	160.2

Source: Greg Wiles, "'89 Japan investment here a record," Sunday Star-Bulletin & Advertiser, April 8, 1990, pp. B-4, B-5.

Table 717.-- JAPANESE INVESTMENT IN REAL ESTATE, FOR THE UNITED STATES, HAWAII AND HONOLULU METROPOLITAN STATISTICAL AREA: 1989 AND EARLIER YEARS

Period	United States (bil. dol.)	Hawaii		Honolulu MSA	
		Amount (bil. dol.)	Rank	Amount (mil. dol.)	Rank
1987	12.77	3.33	1	(NA)	(NA)
1988	16.54	1.83	4	1,325	4
1989	14.77	4.44	2	1,064	4
Cumulative:					
Through 1987	26.34	7.24	1	4,420	3
Through 1988	42.88	9.07	2	5,745	(NA)
Through 1989	57.66	13.50	2	6,809	(NA)

NA Not available.

Source: Kenneth Leventhal & Company, 1989 Japanese Investment in United States Real Estate (1990), pp. 1, 10, and 15.

Table 718.-- CHARACTERISTICS OF JAPANESE REAL ESTATE INVESTMENTS, FOR THE STATE AND HONOLULU MSA: 1989

Subject	State total	Honolulu MSA
Amount (million dollars)	4,437	1,064
Average transaction (million dollars)	55.5	28.0
Leading property types (percent):		
Hotel/resort	43	33
Land	20	19
Residential	14	(1/)
Mixed use	(1/)	17
Leading investment methods (percent):		
Existing property, full purchase	35	60
New construction, joint venture	25	21
Leading investor types (percent):		
Construction/development	54	33
Individual/investment company	20	40
Miscellaneous public/private company	19	23

1/ Not among top three types.

Source: Kenneth Leventhal & Company, 1989 Japanese Investment in United States Real Estate (1990), pp. 12, 13, 18, and 19.

Section 25

COMPARATIVE NATIONAL STATISTICS

This section presents statistics for the United States as a whole, the corresponding figures for Hawaii, and the rank of Hawaii among the 50 states. The 12 tables in this section contain 356 series, thought to include the most significant or frequently requested types of data for which national comparisons are available. Virtually all of the major subject-matter areas covered in the first 24 sections of the Data Book are represented. The comparisons include totals, averages, medians, percentages, and rates.

Ranked against other jurisdictions, Hawaii was first in 31 comparisons, second in 11, last in 8, and second last in 20. Hawaii ranked 39th in population, first in life expectancy at birth, third in public school pupil-teacher ratio, 14th in crime rate, 47th in land area, 13th in percent of land owned by the Federal government, 27th in visitor expenditures, 48th in votes cast as a percent of voting-age population, 14th in State and local government expenditures per capita, 22nd in defense spending, 27th in public aid recipients relative to population, 22nd in female labor force participation rate, 12th in per capita disposable personal income, sixth in family living costs (based on data for 100 metropolitan areas), sixth in per capita bank deposits, 30th in newspaper circulation per capita, 48th in energy consumption per capita, 50th in highway mileage, first in volume of crop marketings for pineapple, macadamia nuts, and bananas, 18th in value of commercial fish catch, 49th in percent of housing units owner occupied, 45th in value added by manufacture, fifth in retail sales per capita, ninth in hotel receipts, and second in percent of agricultural land that is foreign owned.

High ranks do not necessarily mean favorable scores, nor low ranks unfavorable scores. Hawaii was first (highest) in expectation of life at birth and 49th (second lowest) in crude death rate, for example, but both were highly desirable positions.

When Hawaii shared the same rank with other jurisdictions, the next lower rank (or ranks) was omitted. Although most comparisons were for the 50 areas, some ranked Honolulu against other large metropolitan areas, and a few were based on other groupings. Variations in comparison groups are noted in the stubs or footnotes.

Some of the values shown for Hawaii in this section differ from the corresponding figures given elsewhere in the Data Book, because of differences in sources or subsequent revisions in data.

This section was taken from other tables in this edition or their underlying sources, Statistical Abstract of the United States: 1990, pp. xii-xxi, and State and Metropolitan Area Data Book, 1986, table 1. Historical data on state rankings are not readily available for most series.

Table 719.-- POPULATION, VITAL STATISTICS, AND HEALTH

Subject	United States	Hawaii	
		Number	Rank
Resident population, 1989 (1,000)	248,239	1,112	39
Percent change in resident population, 1980-1989	9.6	15.3	11
Resident population per square mile, 1988	69.5	170.9	13
Percent of population in metro areas, 1988	77.1	76.3	19
Percent male, 1988	48.7	50.9	3
Resident population, percent 65 years and over, 1989	12.5	10.7	42
Median age of population, 1989 (years)	32.7	32.3	28
Resident population, by selected races, 1980: 1/			
White, percent of population	83.1	33.0	50
Black, percent of population	11.7	1.8	38
Asian and Pacific Islander, percent of population	4.5	64.9	1
Pct. married of persons 15 years old and over, 1980: 1/			
Male	60.1	55.2	50
Female	54.8	56.8	22
Households, 1989 (1,000)	92,917	361	43
Persons per household, 1989	2.60	2.97	2
One-person households (percent), 1980 1/	22.7	17.1	51
Christian church adherents, percent of population, 1980	49.3	33.1	48
Births per 1,000 population, 1989	16.2	17.6	7
Percent of births to teenage mothers, 1986 1/	12.6	9.6	40
Percent of births to unmarried women, 1988	25.7	22.2	31
Deaths per 1,000 population, 1989	8.7	6.0	49
Abortions per 1,000 women 15-44, 1985 1/	28.0	43.7	3
Infant mortality per 1,000 births, 1987	10.1	8.9	38
Deaths per 100,000 population, by cause, 1987: 1/			
Diseases of the heart	312.4	184.3	49
Malignant neoplasms	195.9	131.9	49
Cerebrovascular diseases	61.6	42.7	45
Accidents and adverse effects	39.0	28.7	51
Average life expectancy, 1979-1981 (years)	73.88	77.02	1
Marriages per 1,000 population, 1989	9.7	16.2	2
Divorces per 1,000 population, 1989	4.7	5.1	16
Per capita personal health care expend., 1982 1/ (dollars)	1,220	1,228	17
Average daily hospital room charge, 1989 (dollars)	262	303	9
Hospital beds per 100,000 population, 1987	518	351	49
Hospital occupancy rate, 1987	69.2	81.1	2
Active physicians per 100,000 civilian population, 1988	210	225	10
Active dentists per 100,000 civilian population, 1987	58	65	14

1/ Ranks based on 51 areas.

Table 720.-- EDUCATION AND LAW ENFORCEMENT

Subject	United States	Hawaii	
		Number	Rank
Elementary and secondary schools: 1/			
Public, 1986-1987	80,207	216	49
Private, 1980-1981	20,764	114	34
Elementary and secondary school enrollment (1,000): 1/			
Public, Fall 1987	40,024	166	41
Private, 1980-1981	4,962	37	31
Elementary and secondary school teachers (1,000): 1/			
Public, 1987-1988	2,275	8.8	43
Private, 1980-1981	277.4	2.1	31
Public school enrollment, percent of persons 5-17 years old, Fall 1987	88.4	84.4	44
Percent change in public school enrollment, 1980-1990	-0.5	6.1	10
Pupil-teacher ratio in public schools, Fall 1987	17.6	21.6	3
Public school expenditures, 1987-1988 (mil. dol.) 1/	171,690	648	44
Per pupil in daily attendance (dollars)	4,209	3,894	29
Per capita (dollars)	705	598	40
Scholastic Aptitude Test scores, 50 States, 1987-1988:			
Verbal	428	408	47
Math	476	480	31
High school graduates as percent of population 25 years and older, 1980 1/	66.5	73.8	9
Public high school graduates, 1988 (1,000)	2,492.8	10.8	41
Public teachers' average annual salary, 1989 (dollars)	29,648	30,778	14
Higher education enrollment, Fall 1987 (1,000)	12,768	52	40
College graduates as percent of population 25 and older, 1980 1/	16.3	20.3	5
Earned degrees conferred, 1985-1986: 1/			
Bachelor's	987,823	3,385	46
Master's	288,567	911	41
Doctorate	33,653	132	39
Average salaries of full-time instructional faculty of institutions of higher education, 1987-1988 (dollars)	36,011	35,489	18
Crime rate per 100,000 population, 1988 1/	5,664	5,989	14
Violent crime rates	637	257	40
Property crimes	5,027	5,732	8
Marijuana harvest, 1987 (billion dollars) 1/	33	1.33	6
Federal and State prisoners over 1 year per 100,000 population, 1988	244	131	37
Expenditures per capita for criminal justice activities, 1987 (dollars)	211	249	8
Population per lawyer, 1985	360	373	38

1/ Ranks based on data for 51 areas, including D.C.

Table 721.-- GEOGRAPHY, ENVIRONMENT, LAND USE, AND LAND OWNERSHIP

Subject	United States	Hawaii	
		Number	Rank
General coastline (statute miles)	12,383	750	4
Land area, 1980 (1,000 square miles)	3,539.3	6.4	47
Highest point (feet)	20,320	13,796	6
Approximate mean elevation (feet)	2,500	3,030	10
Water withdrawn per capita, 1985 (gal. per day), fresh	1,400	1,100	31
Ground water withdrawn, percent of total, 1985	18.5	30.5	9
Hazardous waste sites, 1989	1,209	7	42
Environmental quality score: 1/			
Poisons	370	187	3
Public health	177	131	16
Worker health	186	120	12
Politics and policies	166	193	31
Composite score	858	631	7
Air pollutant emissions, 1982 (1,000 tons):			
Carbon monoxide	88,440	342	43
Nitrogen oxides	22,929	63	47
Particulates	40,661	55	48
Normal daily mean temperature, 1951-1980 (degrees F.): 2/			
January	32.5	72.6	1
July	75.2	80.1	15
Annual average	54.5	77.0	1
Temperature of record, period of record through 1985 (degrees Fahrenheit): 2/			
Highest temperature	105	94	68
Lowest temperature	-13	53	69
Normal annual precipitation, 1951-1980 (inches) 2/	34.72	23.47	55
Average number of days with precipitation of .01 inch or more, period of record through 1985 2/	113	100	52
Average percentage of possible sunshine, period of record through 1985 2/	59	67	9
Average wind speed, period of record through 1985 (miles per hour) 2/	9.4	11.6	7
Urban and built-up nonfederal land, 1982 (1,000 acres)	46,416	126	49
Urban land acreage per capita, 1980	0.28	0.21	46
Land owned by federal government, percent of total land area, 1987	31.9	16.4	13

1/ 1990 Green Index (institute for Southern Studies). Lower scores and ranks indicate better environmental quality. U.S. score represents median State.

2/ Data for Honolulu and 68 other U.S. cities.

Table 722.-- RECREATION, TRAVEL, AND ELECTIONS

Subject	United States	Hawaii	
		Number	Rank
Foreign visitor arrivals, 1983 (1,000)	21,707	1,423	5
Visitor expenditures, 1984 (million dollars)	411,350	4,620	27
Domestic travel expenditures, 1987 (million dollars) 1/	275,158	3,301	25
Foreign visitor expenditures, 1983 (milllion dollars)	13,772	1,172	4
Economic impact of domestic visitors, 1987: 1/			
Payroll (million dollars)	60,749	818	24
Percent of total payroll	4.9	13.1	3
Employment (1,000)	5,038	60	27
Tax revenues (million dollars)	33,645	392	27
Economic impact of foreign visitors, 1983:			
Payroll (million dollars)	3,066	305	4
Employment	312,800	28,800	4
Tax revenues (million dollars)	1,647	127	4
State travel office budgets, FY 1988-1989 (mil. dol.)	320.7	17.3	4
National Park System acreage, FY 1984 (1,000 acres)	74,898	245	17
State parks and recreation areas, FY 1988:			
Acres (1,000)	10,820	25	46
Visitors (million)	710.3	18.7	12
Paid license holders, FY 1987 (1,000):			
Fishing	30,350	8.4	50
Hunting	15,819	12.1	50
Passports issued, 1983 (1,000)	4,121.5	37.6	27
Per capita State appropriations for State arts agencies, 1989 (dollars)	1.18	6.23	1
Number of local governments, 1987	83,235	19	50
Popularly elected State and local officials, 1987	497,155	160	50
Per 10,000 population	20.6	1.5	50
Voting-age population, 1988 (1,000)	182,628	824	40
Popular vote cast for President, 1988 (1,000)	91,595	354	43
Votes cast, percent of voting-age population	50.2	43.0	48
Percent voting for Republican party	53.4	45.7	48
Vote cast for U.S. Representatives, 1988 (1,000)	81,786	340	43
Percent voting for Democratic party	53.4	65.1	8

1/ Rank based on data for 51 areas, including D.C.

Table 723.-- GOVERNMENT FINANCES AND EMPLOYMENT AND NATIONAL DEFENSE

[Fiscal year data unless otherwise specified]

Subject	United States	Hawaii	
		Number	Rank
Federal government:			
Per capita expenditures, 1989 (dollars)	3,701	4,866	6
Per capita grants to State and local government, 1989 (dollars)	481	475	27
Civilian employment per 10,000 population, 1986	118.7	254.2	4
State and local government:			
Per capita general revenue, 1988 (dollars)	2,958	3,641	6
Per capita taxes, 1988 (dollars)	1,772	2,259	5
Per capita debt outstanding, 1988 (dollars)	3,072	3,270	24
Per capita general expenditure, 1988 (dollars)	2,868	2,974	14
Per capita capital outlay, 1987 (dollars)	364	490	8
Employees per 10,000 population, 1987:			
State	143	390	1
Local	353	114	50
Average employee earnings, October 1987 (dollars):			
State employees	2,161	1,897	30
Local employees	2,061	2,139	14
State government general fund balance, 1989 (mil. dol.)	533.9	483	1
State income tax collections, percent of all collections, 1988	30.3	30.7	27
Per capita adjusted gross income, 1987 (dollars)	11,390	11,710	14
Per capita Federal income tax, 1987 (dollars)	1,587	1,517	18
Residential effective property tax rate per $100, 1988 (51 large cities)	1/ 1.48	0.59	51
Governor's salary, March 1989 (dollars)	2/ 75,000	80,000	20
Federal funds for defense, 1988 (billion dollars)	225.9	2.8	22
Department of Defense employment, 1988:			
Civilian employees (1,000)	937.2	20.6	15
Military personnel (1,000)	1,338.1	44.0	7
Department of Defense payroll, 1988 (mil. dol.)	61,782	1,853	9
Department of Defense contract awards, 1988 (mil. dol.)	125,767	541	33
Veterans, March 31, 1989 (1,000)	27,103	100	43
Per 1,000 civilian population 18 and over	152.2	135.3	44

1/ Median city of 51 surveyed.
2/ Median State.

Table 724.-- SOCIAL INSURANCE, HUMAN SERVICES, LABOR FORCE, EMPLOYMENT, AND EARNINGS

Subject	United States	Hawaii	
		Number	Rank
Payments for Aid to Families with Dependent Children, 1988 (million dollars)	16,827	82	33
Public aid recipients, percent of population, 1988	6.1	4.9	27
Food stamp recipients, percent of population, 1988	7.5	6.6	24
Social Security recipients, percent of population, 1988	15.3	13.0	43
Medicare payments, 1988 (million dollars)	86,318	248	43
Average weekly unemployment benefits, 1987 (dollars) 1/	140	155	14
Quality of life score, 300 MSAs including Honolulu, 1990	(NA)	(NA)	27
Civilian labor force, 1989 (1,000) 1/	123,869	525	42
Civilian employment, 1989 (1,000) 1/	117,342	511	41
Civilian employment, pct. of civilian noninstitutional population 16 years and over, 1989 1/	63.0	64.7	25
Unemployed persons, 1989 (1,000) 1/	6,528	13	49
Unemployment rate, pct. of civ. labor force, 1989 1/	5.3	2.6	51
Male unemployment rate, 1989 1/	5.2	2.6	51
Female unemployment rate, 1989 1/	5.4	2.5	51
Percent of persons 16 and over in labor force, 1989: 1/			
Male	76.4	74.1	40
Female	57.4	59.9	22
Percent of civilian employment, 1989:			
Manufacturing	21.8	4.7	48
Services	23.1	24.1	3
Government	19.1	19.9	7
Percent in managerial and professional specialty occupations, 1989 1/	(NA)	28.4	13
Average annual pay, workers covered by State unemployment compensation, 1989 (dollars)	22,567	21,624	17
Average annual wages, selected industries, 1989 (dol.):			
Construction	25,213	33,911	2
Manufacturing	25,668	20,129	46
Retail trade	12,283	13,443	9
Services	20,764	19,939	14
Government	24,116	25,781	10
Multiple jobholders, May 1989 (percent) 1/	6.2	5.2	41
Average hours of work, 1989 1/	(NA)	39.4	37
Union membership in mfg., percent of employment, 1988	24.9	41.4	3

NA Not available.
1/ Ranks based on data for 51 areas, including D.C.

Table 725.-- INCOME, EXPENDITURES, WEALTH, AND PRICES

Subject	United States	Hawaii	
		Number	Rank
Gross state product, 1986 (billion dollars) 1/	4,192	19.3	41
Percent change, 1980-1986 1/	57.0	47.8	32
Manufacturing, percent of total, 1986 1/	19.7	5.2	47
Personal income, 1989 (billion dollars)	4,368.1	20.5	39
Disposable	3,710.7	17.3	39
Per capita personal income, 1989 (dollars)	17,596	18,472	13
Disposable	14,948	15,584	12
Median income, 1979 (dollars):			
Households	16,841	20,473	2
Families	19,917	22,750	5
Unrelated individuals	6,695	7,097	11
Median family income, fiscal 1990 (dollars)	35,700	39,800	8
Percent of persons below poverty level, 1984-1986	14.0	9.9	45
Household finances, 1984-85, 26 MSAs incl. Honolulu:			
Average income before taxes (dollars)	2/ 26,172	30,751	4
Average expenditures (dollars)	2/ 23,763	24,818	7
Persons with assets over $500,000, 1986:			
Number (1,000)	3,286.0	11.0	42
Per 10,000 population 21 and older	197.7	151.5	30
Assets (billion dollars)	3,721.1	11.3	40
Consumer price index for all urban consumers, 29 MSAs including Honolulu, 1989 annual average:			
1967=100 (26 MSAs)	371.3	354.4	23
1982-1984=100 (27 MSAs)	124.0	128.7	4
Percent increase, 1988-1989 (29 MSAs)	4.8	5.8	1
Four-person family budgets, Autumn 1981 (dollars), 25 MSAs including Honolulu:			
Lower budget	15,323	20,319	2
Intermediate budget	25,407	31,893	1
Higher budget	38,060	50,317	1
Four-person higher-income family budget, 1986 (percent of U.S. average), 100 MSAs including Honolulu	100.0	114.5	6
Retail food prices, June 1987 (percent of 17-city average), 17 cities including Honolulu	100.0	126.6	1

1/ Ranks based on data for 51 areas, including D.C.
2/ Western Region average.

Table 726.-- BANKING, INSURANCE, BUSINESS ENTERPRISE, AND COMMUNICATIONS

Subject	United States	Hawaii	
		Number	Rank
Commercial bank deposits, Dec. 31, 1988 (bil. dol.)	2,116.5	10.9	37
Per capita deposits (dollars)	8,560	9,984	6
Savings institutions (FSLIC-insured):			
Deposits, Dec. 31, 1986 (bil. dol.) 1/	928.8	3.8	37
Percent of mortgage loans foreclosed, 1988	2.23	.47	40
Return on assets, 1988 (percent)	-1.08	.87	1
Shareowners of public corporations, 1985 (1,000)	47,040	256	36
Percent of population	20.1	24.8	6
Life insurance in force per household, 1988 ($1,000)	87.6	120.0	3
Average auto insurance premium, 1987 (dollars)	487	530	12
Percent without health insurance, 1986 1/	17.8	12.9	41
Private business establishments, 1987 (1,000)	5,937.1	27.3	41
With 1 to 4 employees (1,000)	3,290.3	14.5	42
With 1,000 employees or more (number)	4,819	19	40
New business incorporations, 1988 (1,000)	684.9	3.0	40
Major corporate headquarters, 1988	(NA)	3	38
Per million population	(NA)	2.7	26
Business failures per 10,000 concerns, 1988	98	79	29
Inc.'s ranking of State economies, 1989	(NA)	(NA)	12
Corp. for Enterprise Development's "Development Report Card," 1990 (grades of A through F):			
Economic performance	(NA)	A	2
Business vitality	(NA)	D	38
Development capacity	(NA)	B	13
State policy	(NA)	C	34
Telephone access lines, 1988 (millions)	130	.54	41
Percent of housing units with telephones, 1980 1/	93.0	95.1	15
Commercial radio stations, January 10, 1985 1/	8,354	39	47
Commercial television stations, January 10, 1985 1/	887	13	28
Percent of TV households, with cable, 1985 1/	45.1	65.1	2
Daily newspapers, 1988	1,642	6	48
Circulation per capita, 1988	0.26	0.22	30

NA Not available.

1/ Rank based on data for 51 areas, including D.C.

Table 727.-- ENERGY, SCIENCE, AND TRANSPORTATION

Subject	United States	Hawaii	
		Number	Rank
Energy consumption per capita, 1987 (million Btu)	315	217	48
Percent of energy consumption (in Btu) from petroleum, 1987	42.8	97.4	1
Energy expenditures per capita, 1987 (dollars)	1,615	1,368	48
Electric energy sales, 1988 (billion kWh)	2,578	7.7	44
Household electric bill for 1,000 kWh, Sept. 1990 (26 cities, incl. Honolulu) (dollars)	86.08	77.62	16
Gas utility sales, 1987 (trillion Btu)	10,543	3	49
Average price of utility (piped) gas for 100 therms, 1986 (28 MSAs, including Honolulu) (dollars)	58.70	129.81	1
Average sales price of motor gasoline (self-service, regular) per gallon, April 1990 (dollars)	1.03	1.25	1
Federal obligations for research and development, 1988 (million dollars)	55,636	82.2	39
Research and development expenditures in universities, 1988 (million dollars)	13,243	64.3	36
Patents issued to U.S. residents, 1988	44,570	62	45
Highway and street mileage, 1988 (1,000)	3,871	4.1	50
Licensed drivers per 1,000 driving-age population, 1988	860	754	47
Motor vehicle registrations per 1,000 population, 1988	572	559	29
Vehicle-miles of travel per mile of road, 1987	497	1,756	1
Average highway speed, 1988 (m.p.h.), 48 States	56.3	56.2	29
Motor vehicle accident deaths per 100,000 population, 1987	19.8	12.4	50
Commuting to work, 1980: 2/			
Percent of workers using public transportation	6.4	8.3	7
Percent of workers using private transportation	84.1	78.5	45
Mean travel time to work (minutes)	21.6	21.5	13
Aircraft facilities, December 31, 1988	17,327	54	48
Air operations (takeoffs and landings), 1988 (1,000)	61,538	874	25
Honolulu International Airport, 1988: 3/			
Aircraft operations (1,000)	(NA)	377	23
Enplaned passengers (1,000)	(NA)	8,396	15
General aviation, active aircraft, 1988 (1,000)	210.3	0.6	49
Active pilots, Dec. 31, 1988 (1,000)	694.0	3.6	43
Numbered vessels (State-registered), 1989 (1,000)	10,777	13.5	50

NA Not available.

1/ Median city.

2/ Rank based on data for 51 areas, including D.C.

3/ Rank based on data for all FAA-operated airports.

Table 728.-- AGRICULTURE, FORESTS, FISHERIES, AND MINING

Subject	United States	Hawaii	
		Number	Rank
Farm population, percent of total population, 1980	2.48	0.47	45
Farms, 1989 (1,000)	2,159	5	44
Land in farms, 1989 (million acres)	991	2	40
Acreage per farm, 1989 (acres)	456	370	19
Acreage, individual or family farms, pct. of total, 1982	65.1	24.6	49
Value of land and buildings, 1982 (million dollars)	774,158	3,575	39
Average value per farm ($1,000)	345.9	778.5	3
Average value per acre (dollars)	784	1,826	9
Value of products sold per farm, 1982 ($1,000)	58.9	121.6	3
Farm debt-to-asset ratio, 1987 (percent)	18.9	8.2	44
Net farm income-to-debt ratio, 1987 (percent)	28.9	48.8	7
Acreage in harvested crop, 1982 (1,000 acres)	326,306	156	48
Vegetables	3,330.6	4.7	39
Sugarcane, for sugar	713.1	89.7	3
Pineapple	23.1	23.1	1
Macadamia nuts	15.7	15.5	1
Bananas	1.1	1.1	1
Value of farm marketings, 1987 (million dollars)	138,094	559	40
Crops	61,876	471	33
Livestock and products	76,218	88	47
Volume of crop marketings, 1982:			
Sugarcane, for sugar (1,000 tons)	27,902	8,950	2
Pineapple, harvested (tons)	627	627	1
Macadamia nuts (1,000 pounds)	35,648	35,595	1
Taro (1,000 pounds)	6,386	3,360	1
Coffee, parchment (1,000 pounds)	1,806	1,806	1
Value of sales of livestock, poultry, and their products, 1982 (million dollars)	69,644	103	47
Cattle and calves	31,635	45	41
Dairy products	16,320	24	45
Poultry and poultry products	9,797	22	39
Hogs and pigs	9,868	9	36
Forest land, 1987 (1,000 acres)	731,377	1,748	43
Commercial timberland, 1987 (1,000 acres)	483,319	700	45
Commercial fish catch, 1987 (million pounds)	6,896	16	18
Value of fish catch, 1987 (million dollars)	3,115	29	18
Mineral (nonfuel) production value, 1987 (million dol.)	26,346	73	44
Value added in mining 1987 (million dollars)	111,121	23.5	47
Mineral industry employees, 1982 (1,000)	1,114.0	0.2	49

Table 729.-- CONSTRUCTION, HOUSING, AND MANUFACTURES

Subject	United States	Hawaii	
		Number	Rank
Private housing units authorized, 1988 (1,000)	1 [illegible]55.6	8.4	32
Valuation of units authorized (million dollars)	[illegible],625	657	30
Value of construction contracts, 1988 (billion dollars)	[illegible]53.1	1.7	32
Construction business receipts, 1982 (mil. dol.) 1/	365,421	2,032	37
Construction industry employees, 1982 (1,000) 1/	4,275.1	18.7	41
Average payroll per employee (dollars) 1/	18,401	21,949	5
Existing home sales, 1989 (1,000)	3,780	12.1	46
Median sales price of existing 1-family home, 1989 (dollars) 95 MSAs, including Honolulu	93.1	267.6	1
Year-round housing units, 1980 (1,000) 1/	86,693	332	43
One unit at address (percent)	66.0	51.7	49
Five or more units at address	17.9	38.1	2
Median rooms per unit	5.1	4.4	50
Percent vacant	7.3	11.5	3
Occupied year-round housing units, 1980 (1,000) 1/	80,390	294	43
With 1.01 or more persons per room (percent)	4.5	15.3	1
Percent owner-occupied units	64.4	51.7	49
Condominium housing units, 1980 (1,000) 1/	2,253	74	6
Percent of total housing units	2.5	22.2	1
Median value of owner-occupied condo units ($1,000)	59.1	99.0	1
Median value of owner-occupied units, 1980 ($1,000) 1/	47.2	118.1	1
Median monthly homeowner costs, 1980 (dollars) 1/	365	463	2
Median monthly rent of renter-occupied units, 1980 (dollars) 1/	243	311	2
Manufacturing establishments, 1987	368,817	1,020	44
Value of manufacturing shipments, 1987 (billion dollars)	2,480.2	3.5	46
Value added by manufacture, 1987 (billion dollars)	1,166.6	1.4	45
Manufacturing employees, 1987 (1,000)	18,934	22	46
Production workers	12,260	15	46
Average hourly earnings of production workers, 1988 (dollars)	10.18	9.79	32
Percent of manufacturing employees unionized, 1988	24.9	41.4	3

1/ Rank based on data for 50 States and D.C.

Table 730.-- DOMESTIC TRADE, SERVICES, AND FOREIGN AND INTERSTATE COMMERCE

[Retail data refer to establishments with payroll and subject to federal income tax]

Subject	United States	Hawaii	
		Number	Rank
Retail sales, 1987 (billion dollars)	1,493.3	8.08	39
Sales per capita (dollars)	6,150	7,472	5
Retail establishments, 1987 (1,000)	1,503.6	7.2	40
Retail sales, selected businesses, 1987 (bil. dol.):			
Food stores	301.8	1.57	40
General merchandise stores	181.1	1.25	35
Automotive dealers	333.4	1.22	42
Eating and drinking places	148.8	1.35	31
Apparel and accessories stores	77.4	0.58	31
Shopping centers, 1988	32,563	129	42
Gross leasable area (mil. sq. ft.)	3,947	13.3	44
Retail sales (mil. dol.)	641,093	2,267	43
Supermarkets, 1988 1/	30,265	105	43
Sales per household (dollars) 1/	2,612	2,302	45
Wholesale trade establishments, 1982 (1,000)	415.8	1.7	42
Service establishments, 1982 (1,000)	1,261.7	6.1	40
Service receipts, 1982 (billion dollars)	427.0	2.7	34
Receipts per service establishment ($1,000)	338.4	434.3	4
Hotels, motels, and other lodging place receipts, 1982 (mil. dol.)	33,215	973	9
Hotel occupancy rate (percent), 1989 2/	63.7	85.4	1
Hotel daily room rate (dollars), 1989 2/	70.03	75.16	11
Motion picture industry, ests. with payroll, 1982:			
Production, distribution, and service ests.	7,905	15	34
Receipts (million dollars)	10,117	4	40
Theaters	9,344	34	47
Exports, 1988 (billion dollars)	322.2	0.13	49
General imports, 1988 (billion dollars)	459.6	1.12	33
Foreign direct investment (nonbank affiliates), 1987:			
Gross property, plant, and equipment (bil. dol.)	353.3	3.47	28
Employment (1,000)	3,224.3	27.3	29
Japanese owned	284.6	15.8	5
Land owned (1,000 acres)	13,829	57	35
Export-related manufactures shipment value, 1986 (billion dollars) 1/	284.3	0.32	48
Export-related as percent of total shipments 1/	13.0	10.3	43
Foreign-owned agricultural land as percent of all private agricultural land, 1989	1.0	5.3	2

1/ Rank based on data for 50 States and D.C.

2/ For 52 cities, including Honolulu.

BIBLIOGRAPHY

This volume is the 24th of its type published by the Hawaii State Department of Business, Economic Development & Tourism (DBED) and its predecessor agencies. The first was Statistical Abstract of Hawaii, 1962, issued by the Department of Planning and Research in 1962. After a four-year hiatus, updated versions titled The State of Hawaii Data Book were published by the Department of Planning and Economic Development in 1967, 1968, and annually beginning in 1970. The 1987 edition was the first one issued by DBED. All of the volumes issued before 1989 are now out of print, but copies can be consulted in the DBED Library, Hawaii State Library, University of Hawaii and community college libraries, and other collections throughout the State.

Additional information regarding specific statistical sources can be found in the introductory statements to each section of the Data Book, in footnotes and source references to the various tables, and in the underlying reports.

Although most of the series in the Data Book are shown only for recent years, many earlier figures appear in Historical Statistics of Hawaii, by Robert C. Schmitt. This book, published by the University Press of Hawaii in 1977, contains 711 pages of narrative and tables on the development of statistics in Hawaii since the 18th century.

Privately published works of general statistical reference include Hawaii Facts and Figures 1989, sold by the Chamber of Commerce of Hawaii, and All About Business in Hawaii 1990, published by Crossroads Press, Inc.

Two of the four counties have produced statistical abstracts. In December 1989, the Kauai Economic Development Board issued 1989 Statistical Abstract of the Kauai Economy. The Hawaii County Department of Research and Development has published 1989 County of Hawaii Data Book.

Persons interested in data for other States or the nation as a whole should consult the Statistical Abstract of the United States and its companion volumes, the State and Metropolitan Area Data Book and County and City Data Book. The Abstract is an annual publication of the U.S. Bureau of the Census, initiated in 1878. The current edition is the 110th, dated 1990; copies are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. The State and Metropolitan Area Data Book, 1986 and County and City Data Book, 1988 are sold by the same agency.

Table A.-- PRINTING HISTORY OF THE STATE OF HAWAII DATA BOOK: 1962 TO 1989

Edition	Number of pages	Number of tables	Price (dollars)		Printing costs (dollars)	Number of copies printed
			Hawaii	Outside State		
1962 1/	128	243	1.00	1.00	(NA)	(NA)
1967	66	95	(NA)	(NA)	1,969.45	3,000
1968	69	99	1.00	1.00	2,969.20	3,000
1970	136	135	1.00	1.00	2,470.92	2,030
1971	159	152	2.00	2.00	4,149.60	2,000
1972 2/	227	210	4.00	5.00	6,245.00	3,000
1973	290	262	4.00	5.00	6,309.00	1,500
1974	306	292	4.00	5.00	9,330.00	2,000
1975	302	309	4.00	5.00	10,222.95	2,000
1976	312	335	4.00	5.00	9,901.13	2,000
1977	339	374	4.00	5.00	11,990.00	2,000
1978	379	425	4.00	5.00	8,900.00	2,000
1979	447	407	4.00	5.00	10,744.00	2,500
1980	545	496	5.00	10.00	12,335.00	2,500
1981	603	563	5.00	10.00	14,910.00	3,000
1982	596	566	5.00	10.00	15,633.00	3,000
1983	663	622	5.00	10.00	15,875.00	2,500
1984	762	724	5.00	15.00	32,003.00	3,000
1985	662	680	5.00	15.00	19,995.00	3,000
1986	705	721	5.00	15.00	19,980.00	3,000
1987	722	746	5.00	15.00	21,981.00	3,000
1988	694	737	5.00	15.00	21,700.00	3,000
1989	651	704	8.00	18.00 3/	21,620.00	3,000

NA Not available.

1/ The 1962 edition was titled Statistical Abstract of Hawaii, 1962. In addition, a 41-page, 57-table supplement, Historical Statistics of Hawaii, 1778-1962, was published and distributed without extra charge to persons receiving the regular edition.

2/ A 19-page supplement, State of Hawaii Census Tract Maps and Directory of Hawaii Map Sources, was included with each copy of the regular edition, and was not sold separately.

3/ U.S. Mainland price; $35.00 for foreign countries.

Source: DBED records.

ON-LINE AVAILABILITY OF DATA BOOK TABLES TO PUBLIC

Early in 1988, the Hawaii State Department of Business and Economic Development initiated a pilot program to make Data Book tables and selected other statistical series available to anyone with a personal computer and a modem.

The program incorporates the full text of The State of Hawaii Data Book (including available updates to the current edition) and the data and analyses in the department's most recent Quarterly Statistical & Economic Report. Other publications and data series may be added if there is sufficient demand.

The DBED electronic bulletin board is available free 24 hours a day, seven days a week.

Until now, getting updated Data Book tables was a time-consuming process. Now the almost daily updates are available on-demand and in a format that is more convenient for people who use many of the popular electronic spreadsheets.

The system is easy to use. It is menu-driven and contains numerous "prompts" which guide the user to the data sets. It also has electronic mail features that permit users to leave messages on the system. User comments and suggestions are welcome.

The bulletin board is maintained on an IBM System 2 microcomputer which is located in the Department's Research and Economic Analysis Division. The system uses the PC Board version 14.5/E6 software. The bulletin board can be accessed at either 300, 1200, 2400 or 9600 baud. Anyone wishing to access the system can call (808) 946-5191. Neighbor Island residents can call toll free 1-800-421-3233. A users guide is available from the Department's Information Office (548-4025) or can be retrieved from the system.

For further information about available data or system specifications, users should call the Research and Economic Analysis Division at (808) 548-4355.

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